

Report Filters and Ordering

Business Area:	TIE Ltd
Business Folder:	TIE Ltd
Business Activity:	TIE Ltd
Include Children:	Yes
Include to Depth:	All
Tree Type:	None Specified
Include Indirect:	No
Summary Details:	All
Impact Reassess't:	No
Event	All
Owner	All
Originator:	All
Project Phase	All
Risk Area (OB)	All
Status:	Open
Type	All
Contract Impacted	All
Exposure	Both
Black Flag:	All
Plan Owner:	All
Action	All
Status:	All
Action Owner	All
Type:	All
Date Filter:	No date filters applied
Custom Filter:	undefined
Ordering:	Results ordered by: Current Significance Descending Black flag risks displayed first.

Business Folder: TIE Ltd **Risk ID :** 187
Area of Risk: 1.7 Miscellaneous
Event Project loses political and public support during construction.
Owner M Crosse
Risk Area (OB) Environment > Public Relations **Status:** Open

Description

Effect: Loss of funding support

Cause Poor relationships with stakeholders including political, Network Rail and other major organisations, businesses, frontages, special interest groups (including Spokes, SNH etc) Equalities Transport (DDA), media, community councils and residents associations

Risk Rating: 14.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Reputation (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	NIL	NIL	Major	NIL
Min	0.00		0.00		4.00	
Expected	0.00	0.00	0.00	0.00	4.00	0.00
Max	0.00		0.00		4.00	

Model Notes This risk is managed as part of day-to-day activity for the Project Director and tie. Main impact is reputation. Any cost or programme impact is likely to be absorbed as part of day to day activity else the effects could pose a black flag risk.

Probability: Current Remote 17.50% Planned Residual NIL 0.00%

Title Information, publicity and involvement of stakeholders

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Regular involvement with stakeholders to keep them informed and to better understand their concerns	M Crosse	31-Dec-2010
Develop strategies to counteract and negative comments	M Connelly	31-Dec-2010
Seek support from pro-tram lobby groups to promote positive views	M Crosse	31-Dec-2010
Continue with Hearts and Minds Campaign	S Waugh	31-Dec-2010

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 286

Area of Risk: 7.3 Infraco

Event Infraco refuses to accept or fully engage in novation of SDS.

Owner B Dawson

Risk Area (OB) Procurement > Dispute & Claims **Status:** Open

Description

Effect: Possible delay to award; Damage to reputation; Possible extra costs or risk transferred back to tie.

Cause Infraco lack of confidence in SDS designs or delivery programme

Risk Rating: 14.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Reputation (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Major	NIL	Major	NIL
Expected	0.00	0.00	8.00	0.00	4.00	0.00

Model Notes If all Infraco bidders take this position and a re-design is inevitable, there could be up to a 6 month delay to current programme.

Probability: Current Remote 20.00% Planned Residual NIL 0.00%

Title Avoid challenge and encourage successful novation

Plan Owner Undefined

High Level Plan Description Arrange meetings to assist confidence building

Fallback Plan Description Infraco would appoint alternative designers

Title	Action Owner	Due
Introduce and engage Infraco bidders to SDS as early as possible	B Dawson	28-Feb-2007
Consult with legal on options relating to due diligence to be carried out on design and availability of consents	B Dawson	28-Aug-2007
Complete designs and allow due diligence to be undertaken by bidders	B Dawson	01-Oct-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd

Risk ID : 915

Area of Risk: 7.3 Infraco

Event Transport Scotland and CEC do not provide indemnities on payment

Owner G Gilbert

Risk Area (OB) **Status:** Open

Description

Effect: Bidders will not commit to contract without this assurance; Delay in bid process; Possible bidder withdrawal from negotiations and bid process.

Cause Policy or operational decision

Risk Rating: **Significance:**

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>

Expected 0.00 0.00 0.00 0.00

Model Notes

Probability: Current 0.00% Planned Residual 0.00%

Title Transport Scotland to provide indemnities sought or an equivalent arrangement

Plan Owner Undefined

**High Level Plan
Description**

**Fallback Plan
Description**

Title	Action Owner	Due
Ensure Transport Scotland understand implication of not resolving the funding agreement and obtain buy-in from them	G Gilbert	15-Aug-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd

Risk ID : 1001

Area of Risk: 7.3 Infraco

Event Termination due to failure to satisfy a CP within 3 months of Effective Date which tie does not waive

Owner S Clark

Risk Area (OB) Status: Open

Description

Effect: Potential project suspension/cancellation

Cause

Risk Rating:

Significance:

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>
Expected	0.00	0.00	0.00	0.00

Model Notes

Probability: Current 10.00% Planned Residual 0.00%

Title Clause 77

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Costs will be recovered from Infraco up to the cap under Clause 77. tie contract management team will obtain CP document on contract award.	S Clark	31-Jul-2008

Caveat: Undefined Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 1002

Area of Risk: 7.3 Infraco

Event Termination due to failure to satisfy a CP within 6 months of the Effective Date which tie does not waive

Owner S Clark

Risk Area (OB) Status: Open

Description

Effect: Potential project suspension/cancellation

Cause

Risk Rating:

Significance:

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>

Expected 0.00 0.00 0.00 0.00

Model Notes

Probability: Current 10.00% Planned Residual 0.00%

Title Clause 77

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
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Costs recovered from Infraco up to the cap under Clause 77. tie contract management will obtain CP document at contract award.	S Clark	31-Jul-2008
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Caveat: Undefined Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 1004
Area of Risk: 7.3 Infraco
Event: Failure to pay the Infraco resulting in the title in all materials, goods and equipment not transferring to CEC
Owner: G Gilbert

Risk Area (OB) **Status:** Open

Description

Effect: Project cancellation

Cause

Risk Rating: **Significance:**

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	NIL	NIL

Expected 0.00 0.00 0.00 0.00

Model Notes

Probability: Current 5.00% Planned Residual 0.00%

Title: tie project management

Plan Owner: Undefined

**High Level Plan
Description**

**Fallback Plan
Description**

Title	Action Owner	Due
Project financial reporting will provide CEC with advance notice of payment drawdown requirement. CEC to effect treasury management to support the payment requirements	G Gilbert	31-Jan-2011

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd

Risk ID : 1005

Area of Risk: 7.3 Infraco

Event Failure of tie to issue the Certificate of Tram Commissioning (due to tie default or due to tests not having been passed)

Owner S Clark

Risk Area (OB) **Status:** Open

Description

Effect: Project delay or potentially cancellation

Cause

Risk Rating: **Significance:**

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>

Expected 0.00 0.00 0.00 0.00

Model Notes

Probability: Current 1.00% Planned Residual 0.00%

Title Tie project management

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
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Tie project management will ensure that ties actions are discharged timeously so as not to disrupt tram testing and commissioning.	S Clark	31-Jan-2011
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Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 987

Area of Risk: 5 PALIAMENTARY PROCESS/ APPROVALS

Event CEC do not agree to final negotiated contract

Owner D Fraser

Risk Area (OB) **Status:** Open

Description

Effect: Potential cancellation of project

Cause Unacceptable financial cost and/or risk

Risk Rating: **Significance:**

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	NIL	NIL

Expected 0.00 0.00 0.00 0.00

Model Notes

Probability: Current 0.00% Planned Residual 0.00%

Title Call Special Council Meeting to address concerns

Plan Owner Undefined

**High Level Plan
Description**

**Fallback Plan
Description**

Title	Action Owner	Due
Ongoing member engagement	W Gallagher	20-Dec-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd

Risk ID : 1008

Area of Risk: 7.3 Infraco

Event Failure of tie to create the novation agreement – risk is pre-award in that Infraco refuses to accept the novation of SDS.

Owner G Gilbert

Risk Area (OB) Status: Open

Description

Effect:

Cause

Risk Rating: 0.0 Significance: NIL

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	NIL	NIL

Expected 0.00 0.00 0.00 0.00

Model Notes

Probability: Current Improbable 5.00% Planned Residual NIL 0.00%

Title Facilitated Negotiations

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
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tie have developed the Facilitated Negotiations activity prior to contract award to deal with impediments to resolution. Under the Preferred Bidder Agreement award is conditional on Infraco accepting both SDS and Tramco novation.	G Gilbert	31-Jan-2008
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Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 1014

Area of Risk: 7.3 Infraco

Event Termination on tie Default, tie pays value of work done, prelims, supplies goods committed to, demobilisation (and materials removal), 15% as profit loss on all payments

Owner S Clark

Risk Area (OB) Status: Open

Description

Effect: Project cancellation

Cause

Risk Rating: 0.0	Significance: NIL
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Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	NIL	NIL

Expected 0.00 0.00 0.00 0.00

Model Notes

Probability: Current Improbable 1.00% Planned Residual NIL 0.00%

Title Apply effective project management

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Apply effective project management to avoid creating basis for termination	S Clark	31-Jan-2011

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 1015

Area of Risk: 7.3 Infraco

Event: [Definition of tie Default] ties failure to make payment due under Interim Certificates exceeding, in aggregate, 5% of the Contract Price

Owner: G Gilbert

Risk Area (OB) Status: Open

Description

Effect: Project suspension or cancellation

Cause

Risk Rating: 0.0 Significance: NIL

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	NIL	NIL

Expected 0.00 0.00 0.00 0.00

Model Notes

Probability: Current Improbable 1.00% Planned Residual NIL 0.00%

Title: Periodic forecasts

Plan Owner: Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
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Provide forecasts, updated on a four weekly period basis. CEC to manage treasury function to ensure funds are available S Clark 31-Jan-2011

Caveat: Undefined Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 1016

Area of Risk: 7.3 Infraco

Event [Definition or tie Default] ties breach of obligation under the Agreement which materially and adversely affects the carrying out/completion of the Infraco Works[31]

Owner S Clark

Risk Area (OB) Status: Open

Description

Effect:

Cause

Risk Rating: 0.0 Significance: NIL

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	NIL	NIL

Expected 0.00 0.00 0.00 0.00

Model Notes

Probability: Current Improbable 1.00% Planned Residual NIL 0.00%

Title Effective project management

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Apply effective project management. CEC to support tie with quick and effective decision making.	S Clark	31-Jan-2011

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 1017

Area of Risk: 7.3 Infraco

Event Tax fluctuations where tie is informed of such increase within 3 month

Owner G Gilbert

Risk Area (OB) Status: Open

Description

Effect: Increase in costs

Cause

Risk Rating:

Significance:

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>

Expected 0.00 0.00 0.00 0.00

Model Notes

Probability: Current 10.00% Planned Residual 0.00%

Title CEC to manage

Plan Owner Undefined

High Level Plan

Description

Fallback Plan

Description

Title	Action Owner	Due
Residual Risk - CEC to back this off to TS under funding agreement	G Gilbert	31-Jan-2011

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 268

Area of Risk: 4.3 Business Case

Event: Funding not secured/agreements not finalised for total aggregate funding from TS and CEC including grant/indexation at FBC; risk sharing between parties; cashflow profile; financial covenant; public sector risk allocation.

Owner: S McGarrity

Risk Area (OB): Client Specific > Funding Availability **Status:** Open

Description:

Effect: Possible showstopper; Delays and increase in out-turn cost may affect affordability.
Event: also decision on line 1B.

Cause: Final Business Case is not approved or is approved subject to the gaining of additional funding

Risk Rating: **Significance:**

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	NIL	NIL
Expected	0.00	0.00	0.00	0.00

Model Notes

Probability: Current 0.00% Planned Residual 0.00%

Title: Secure full funding

Plan Owner: Undefined

High Level Plan Description:

Fallback Plan Description:

Title	Action Owner	Due
Acquire confidence in contingency figures	S McGarrity	20-Nov-2006
tie are facilitating interaction between TS ANd CEC in the delivery of a funding agreement which will cover all funding matters including decision making on Phase 1b. This process requires each party to facilitate decision making within. Target resoluti	G Bissett	28-Sep-2007
Tram Project Board to monitor progress towards conclusion of agreement.	D MacKay	28-Sep-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 916
Area of Risk: 4 FINANCIAL ISSUES/ FUNDING/ PROCUREMENT STRATEGY
Event CEC do not honour funding obligations
Owner S McGarrity
Risk Area (OB) **Status:** Open
Description
Effect: Potential showstopper to project if contribution not reached; Line 1B may depend on incremental funding from CEC
Cause CEC do not achieve capability to deliver

Risk Rating: 0.0 **Significance:** NIL

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	NIL	NIL

Expected 0.00 0.00 0.00 0.00

Model Notes

Probability: Current NIL 0.00% Planned Residual NIL 0.00%

Title Execute a process to deliver necessary degree of assurance that contributions can be made. Focus on third party c
Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
CEC to deliver necessary contributions for 1a	CEC	28-Aug-2007
CEC has formed a multi discipline Tram Contributions Group to monitor identified sources of £45m contribution including critically developers contributions. tie are invited to that group. (see add info)	CEC	28-Sep-2007
Tram Project Board to monitor progress towards gaining contributions	D MacKay	28-Sep-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 995

Area of Risk: 4 FINANCIAL ISSUES/ FUNDING/ PROCUREMENT STRATEGY

Event Short term funding beyond the existing arrangements of £60m plus 2006-07 rollover of £10.6m cannot be agreed.

Owner G Bissett

Risk Area (OB) **Status:** Open

Description

Effect: Future of project placed in jeopardy

Cause

Risk Rating: **Significance:**

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>

Expected 0.00 0.00 0.00 0.00

Model Notes

Probability: Current 0.00% Planned Residual 0.00%

Title Effective management of funding arrangements

Plan Owner Undefined

**High Level Plan
Description**

**Fallback Plan
Description**

Title	Action Owner	Due
Identify extent and timing of potential shortfall including allowance for cost overrun and short term programme slippage and seek agreement with CEC/TS of funding for the shortfall in the context of the New Award Letter anticipated from TS.	G Bissett	01-Apr-2008
If short term funding is resisted, assess scope to reduce short term expenditure and the implications for programme and cost. Tram Project Board to determine appropriate action	G Bissett	01-Apr-2008

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 996
Area of Risk: 4 FINANCIAL ISSUES/ FUNDING/ PROCUREMENT STRATEGY
Event: Funding agreement between CEC and TS not concluded and financial close cannot be achieved
Owner: G Bissett
Risk Area (OB): **Status:** Open

Description

Effect: Project unable to proceed

Cause: CEC and TS cannot agree on any of the following:
 Scope of project, quantum of funding, rate of release of funding, contribution percentages, governance arrangements

Risk Rating:	0.0	Significance:	NIL
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Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	NIL	NIL

Expected 0.00 0.00 0.00 0.00

Model Notes

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title: TS and CEC negotiatin

Plan Owner: Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Seek to negotiate mutually acceptable terms between CEC and TS in the context of the New Award Letter	G Bissett	31-Dec-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd Risk ID : 997

Area of Risk: 4 FINANCIAL ISSUES/ FUNDING/ PROCUREMENT STRATEGY

Event Components of the funding package cannot be delivered in the necessary timescale

Owner G Bissett

Risk Area (OB) Status: Open

Description

Effect: Significant delay which threatens project continuation

Cause

Risk Rating: 0.0 Significance: NIL

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	NIL	NIL

Expected 0.00 0.00 0.00 0.00

Model Notes

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title Negotiate agreement with CEC

Plan Owner Undefined

High Level Plan
Description

Fallback Plan
Description

Title	Action Owner	Due
Seek agreement that scope of project follows Phase 1a committment	G Bissett	31-Jan-2008

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 998

Area of Risk: 4 FINANCIAL ISSUES/ FUNDING/ PROCUREMENT STRATEGY

Event Funding arrangements cannot be concluded because a material tax exposure emerges which cannot be resolved

Owner G Bissett

Risk Area (OB) **Status:** Open

Description

Effect: Failure to achieve financial close

Cause

Risk Rating:	0.0	Significance:	NIL
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Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	NIL	NIL

Expected	0.00	0.00	0.00	0.00
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Model Notes

Probability:	Current	Improbable	5.00%	Planned Residual	NIL	0.00%
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Title PWC Advice

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
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Seek advice from PWC timeously to avoid creating funding arrangements, corporate structure or other aspects which create such a tax exposure.	G Bissett	31-Mar-2008
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Caveat: Undefined	Classification: Undefined
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Business Folder: TIE Ltd **Risk ID :** 999

Area of Risk: 4 FINANCIAL ISSUES/ FUNDING/ PROCUREMENT STRATEGY

Event: Extent of concessionary fare support committment from TS provides inadequate comfort to CEC

Owner: G Bissett

Risk Area (OB): **Status:** Open

Description:

Effect: CEC whidraw support for FBC and project fails

Cause:

Risk Rating: 0.0 **Significance:** NIL

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	NIL	NIL

Expected 0.00 0.00 0.00 0.00

Model Notes

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title: Negotiation

Plan Owner: Undefined

**High Level Plan
Description:**

**Fallback Plan
Description:**

Title	Action Owner	Due
Negotiate the terms of Government committment to concessionary fare support to level which is satisfactory to CEC	G Bissett	31-Jan-2008

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 1000

Area of Risk: 4 FINANCIAL ISSUES/ FUNDING/ PROCUREMENT STRATEGY

Event OGC Gateway 3 Review does not take place timeously or identifies material weaknesses

Owner S Clark

Risk Area (OB) Status: Open

Description

Effect: Delay and potential withdrawal of support from CEC and/or TS.

Cause

Risk Rating:

Significance:

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>

Expected 0.00 0.00 0.00 0.00

Model Notes

Probability: Current 20.00% Planned Residual 0.00%

Title Comprehensive Planning

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Timeous arrangements with qualified team to prepare for review. Internal review to assess compliance ahead of formal review.	S Clark	28-Sep-2007

Caveat: Undefined Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 139
Area of Risk: 7.2 MUDFA/Utilities
Event: Uncertainty of Utilities location and consequently required diversion work/ unforeseen utility services within LoD
Owner: G Barclay
Risk Area (OB): Client Specific > Poor Project Intelligence **Status:** Open

Description

Effect: Increase in MUDFA costs or delays as a result of carrying out more diversions than estimated

Cause: Utilities diversion outline specification only from plans

Risk Rating: 25.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Catastrophic	NIL	Catastrophic	NIL
Min	0.00		4.00	
Expected		0.00		0.00
Max	4000.00		26.00	

Model Notes Cost impact based on AMIS estimated current at 24/04/07. Residual will reduce as risk budget becomes base budget - overall there unlikely to be a total cost reduction though.

Probability: Current Frequent 90.00% Planned Residual NIL 0.00%

Title Detailed investigation and strategy development

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer	A Hill	19-Oct-2007
Identify increase in services diversions. MUDFA to resource/re-programme to meet required timescales.	J McAloon	19-Oct-2007
Carry out GPR Adien survey	J Casserly	31-Oct-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 164
Area of Risk: 7.2 MUDFA/Utilities
Event: Unknown or abandoned assets or unforeseen/contaminated ground conditions affect scope of MUDFA work.
Owner: I Clark
Risk Area (OB): Client Specific > Poor Project Intelligence **Status:** Open

Description

Effect: Re-design and delay as investigation takes place and solution implemented; Increase in Capex cost as a result of additional works.
Cause: Utilities assets uncovered during construction that were not previously accounted for; unidentified abandoned utilities assets; asbestos found in excavation for utilities diversion; unknown cellars and basements intrude into works area; other physical obstructions; other contaminated land

Risk Rating: 25.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Health & Safety (N/A)		Reputation (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	Catastrophic	NIL	Major	NIL	Catastrophic	NIL	Major	NIL
Min	2000.00		4.00		5.00		4.00	
Expected	5000.00	0.00	13.00	0.00	5.00	0.00	4.00	0.00
Max	8500.00		26.00		5.00		4.00	

Model Notes Probability of this event has increase from 80% to 95% as a result of the trial excavation and subsequent findings on inadequacy of GPR surveys. Capex impact is comprised of the cost of additional work (max £4m) plus the cost of delay during investigation and solution development (£1k per day for max 100 days). It is thought that the maximum total critical programme impact could be upto 26 weeks even taking into account re-deployment of resources to an alternative workfront. This risk now takes account Risks 209 and 864 which related to specific items.

Probability: Current Frequent 95.00% Planned Residual NIL 0.00%

Title Detailed investigation and strategy development

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer	A Hill	19-Oct-2007
Identify increase in services diversions. MUDFA to resource/re-programme to meet required timescales.	J McAloon	19-Oct-2007
Carry out GPR Adien survey	J Casserly	31-Oct-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 870
Area of Risk: 7.3 Infraco
Event: Infraco does not have detail to achieve contract close
Owner: T Glazebrook

Risk Area (OB) **Status:** Open

Description

Effect: Delay to due diligence and start on site and need to appoint additional design consultants

Cause: SDS Designs are late and do not provide detail Infraco requires

Risk Rating: 25.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Catastroph ic	NIL	Catastroph ic	NIL
Expected	3000.00	0.00	20.00	0.00

Model Notes

Probability: Current Frequent 94.50% Planned Residual NIL 0.00%

Title: Review of Design Deliverables

Plan Owner: Undefined

**High Level Plan
Description**

**Fallback Plan
Description**

Title	Action Owner	Due
Review AIPs for Structural Information	S Clark	02-Feb-2007
Obtain Design Progress Dashboard from SDS	T Glazebrook	15-May-2007
Monitor design progress and quality	T Glazebrook	10-Jan-2008

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 952
Area of Risk: 7.3 Infraco
Event: Uncertainty about extent of construction works required on road network relating to Wide Area Modelling issues.
Owner: K Rimmer
Risk Area (OB): Client Specific > Other **Status:** Open

Description

Effect: Potential claim from SDS to deal with additional design work; Potential construction costs to deal with WAM issues (difficult to quantify without design) over and above those already included.
Cause: Scope of works relating to Wide Area Modelling (WAM) have not been agreed with SDS because they consider this to be out with the scope of their contract.

Risk Rating: 25.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Catastrophic	NIL	NIL	NIL
Min	0.00		0.00	
Expected		0.00		0.00
Max	2500.00		0.00	

Model Notes Total maximum cost of £3m based on comparison with CETM improvements project carried out by CEC. £500k already included for in base estimate therefore max risk cost is £2.5m.

Probability: Current Frequent 95.00% Planned Residual NIL 0.00%

Title Wider Area Modelling definition and requirements definition

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Provision of £500k in Draft Final Business Case estimate to deal with WAM requirements	G Gilbert	31-Jan-2007
Employ further traffic management expertise	C McLauchlan	31-Jan-2007
Finalise boundaries of Tram responsibility for WAM requirements	A Sim	31-May-2007
Agree design requirements relating to WAM with SDS	T Glazebrook	31-May-2007
Obtain design and quantify construction cost for inclusion in base estimate	T Glazebrook	31-Jul-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 935
Area of Risk: 1.3.1 NR Immunisation Project
Event: Network Rail do not deliver the immunisation works before the drop dead date of October 2009.
Owner: S Bell

Risk Area (OB) **Status:** Open

Description

Effect: Tram cannot be commissioned to programme; Critical delay.

Cause: Immunisation project not prioritised by Network Rail; Network Rail resources diverted to other projects or emergencies; Multiple iterations of design development; Tram requirements change as a result of Tram design development; Network Rail standards changes; Tram programme not able to be achieved in the first place.

Risk Rating: 24.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	Catastrophic	NIL
Min	100.00		20.00	
Expected		0.00		0.00
Max	500.00		20.00	

Model Notes: Exposure start of this event will be the Easter 2009 possessions period (last available possessions period before drop dead date). Exposure end date could be beyond the end of Tram project if critical delay realised.

Probability: Current Probable 80.00% Planned Residual NIL 0.00%

Title: High level control plan to ensure Immunisation Project programme requirements are met

Plan Owner: Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Confirm and review importance of works with regular Transport Scotland meetings regarding Network Rail	T Glazebrook	30-Mar-2007
Monitor and challenge tie and Network Rail programme development, agree milestones.	S Bell	10-Oct-2007
Ensure Immunisation Works programme allows for design development.	S Bell	10-Oct-2007
Establish baseline, change control and constraints	S Bell	10-Oct-2007
Review draft Immunisation Design Contract and Works Contract	S Bell	15-Oct-2007
tie to agree Immunisation Design Contract with NR	S Bell	31-Oct-2007
Review current applicable signalling standards and options for design solutions	T Glazebrook	31-Oct-2007
tie to agree Immunisation Works Contract with NR	S Bell	30-Nov-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 911
Area of Risk: 7.2 MUDFA/Utilities
Event Presence of Scottish Power tunnel in Leith Walk requires radical solution
Owner M Blake
Risk Area (OB) **Status:** Open

Description

Effect: Tunnel may have to be decommissioned and re-laid in a more suitable location; tram alignment may require to be adjusted; special foundation solution e.g. cantilever may be required; increased capex; potential for tunnel collapse during operation and consequent disruption for tram.

Cause Scottish Power own and maintain a cable tunnel in the vicinity of Leith Walk that may or may not interfere with Tram construction and operation; exact location and depth of tunnel is unknown; condition of tunnel is unknown.

Risk Rating: 24.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		OPEX Cost p.a. (£k)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	Catastrophic	NIL	Minor	Insignificant
Min	400.00	0.00	16.00	0.00	25.00	0.00
Expected	500.00		16.00		62.50	
Max	600.00	0.00	16.00	0.00	100.00	25.00

Model Notes

Probability: Current Probable 80.00% Planned Residual NIL 0.00%

Title Establish requirements and develop engineering solution

Plan Owner Undefined

High Level Plan Description Feasibility study followed by solution development

Fallback Plan Description Undertake worst case scenario i.e. decommission and re-lay tunnel OR construct without moving tunnel and accept that there may be disruption to tram operations due to tunnel collapse or maintenance.

Title	Action Owner	Due
Scottish Power to establish exact location of tunnel	Undefined	02-Apr-2007
tie to undertake engineering feasibility study	J Casserly	02-Apr-2007
SDS to try and ensure tram alignment footprint is outwith Scottish Power alignment	T Glazebrook	28-Dec-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 44
Area of Risk: 2 PROCUREMENT CONSULTANT
Event: Late prior approval consents
Owner: T Glazebrook
Risk Area (OB): Environment > Permits, Consents & Approvals **Status:** Open
Description:
Effect: Delay to programme with additional resource costs and delay to infraco. procurement. Impact upon risk balance.
Cause: SDS contractor does not deliver the required prior approval consents before novation

Risk Rating: 23.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Catastrophic	NIL	Major	NIL
Min	900.00		4.00	
Expected	1800.00	0.00	8.00	0.00
Max	2700.00		12.00	

Model Notes: 3 Month delay assumed, max resource cost @ £1000k per month. Treatment includes preparation and implementation of programme for prior approvals and Traffic Management Plan.

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title: monitor progress of AIPs with SDS

Plan Owner: Undefined

High Level Plan Description:

Fallback Plan Description:

Title	Action Owner	Due
Integrate CEC into tie organisation/accomodation (office move)	T Glazebrook	04-Jun-2007
Hold fortnightly Roads Design Group	T Glazebrook	31-Dec-2007
Hold weekly CEC/SDS liaison meetings	T Glazebrook	31-Jul-2008
Tram Design Working Group	G Murray	31-Jul-2008
Informal consultation prior to statutory consultation	T Glazebrook	31-Jul-2008

Business Folder: TIE Ltd **Risk ID :** 48
Area of Risk: 7.3 Infraco
Event: Price certainty is not achieved
Owner: B Dawson
Risk Area (OB): Procurement > Complexity of Contract Structure **Status:** Open

Description

Effect: Price creep post tender (during pre-construction period). Tender evaluation period exceeds 2 months currently planned. Bidder may attempt to price low at first stage.

Cause: Two stage tender pricing does not achieve price certainty for works at first stage.

Risk Rating: 23.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Catastrophic	NIL	NIL	NIL
Min	5000.00		0.00	
Expected	10000.00	0.00	0.00	0.00
Max	15000.00		0.00	

Model Notes: Assume 20% growth worst case.

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title: Price Certainty
Plan Owner: Undefined
High Level Plan Description: Better price certainty requires better scope certainty.
Fallback Plan Description:

Title	Action Owner	Due
Principles or formulae for adjusting prices on certain items following due diligence and value engineering	B Dawson	28-Aug-2007
Close principal contract conditions prior to preferred bidder selection	B Dawson	28-Aug-2007
Infraco to undertake due diligence on SDS design	G Gilbert	01-Oct-2007
Minimize Infraco qualifications to price and assumptions	B Dawson	31-Oct-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 70
Area of Risk: 7.3 Infraco
Event: Poor definition of design and Employers Requirements in Infraco tender documents
Owner: B Dawson
Risk Area (OB): Procurement > Other **Status:** Open

Description

Effect: Creates impact on the Infraco ability to develop its tender - pricing and supply chain. Increase in time for BAFO and increase in costs. Increase in bidder queries.
Cause: SDS does not provide its defined deliverables (technical specs) in accordance with the SDS contract. Infraco Proposals not fully considered.

Risk Rating: 23.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Catastrophic	NIL	Major	NIL
Min	900.00		4.00	
Expected	1800.00	0.00	8.00	0.00
Max	2700.00		12.00	

Model Notes Say 3 months extra of full tie/TSS/SDS team @ £900k per month (but all should not really be a risk for tie).

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title: monitor bidder queries
Plan Owner: Undefined
High Level Plan Description: Any potentially vague items to be closed out.
Fallback Plan Description:

Title	Action Owner	Due
Finalise Employers Requirements for Infraco tenders	D Powell	13-Jul-2007
SDS to provide information to programme	G Gilbert	28-Aug-2007
receive bidder queries and transmit to sds pm	B Dawson	28-Sep-2007
SDS PM transmits queries and monitors response to ensure timeliness	A McGregor	28-Sep-2007
Monitor commercial impact of bidder queries	A McGregor	28-Sep-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd

Risk ID : 977

Area of Risk: 5 PALIAMENTARY PROCESS/ APPROVALS

Event Delay in achievement of permanent TROs causing delay to project

Owner K Rimmer

Risk Area (OB) **Status:** Open

Description

Effect: Requirement to start construction using TTROs

Cause Absence of signed-off final design. Legal challenge. Extension of statutory consultation process. Large number of objections. TRO process is subject to a public hearing process.

Risk Rating: 23.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
Catastroph ic		NIL	Moderate	NIL

Expected 3000.00 0.00 4.00 0.00

Model Notes 1 month delay at £3m per month

Probability: Current Possible 70.00% Planned Residual NIL 0.00%

Title TRO Strategy

Plan Owner Undefined

High Level Plan Description TRO Strategy approved by Tram Project Board

Fallback Plan Description

Title	Action Owner	Due
Use of TTROs to undertake construction of permanent works in advance of permanent TROs being approved.	K Rimmer	30-Jan-2011

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 980

Area of Risk: 5 PALIAMENTARY PROCESS/ APPROVALS

Event Proposed Scottish Exec amendment of Traffic Regs for Tram core measures is unsuccessful thereby triggering public hearings

Owner K Rimmer

Risk Area (OB) **Status:** Open

Description

Effect: Delay to date by which TROs can be made increasing difficulty of managing the gap period between Infracore commencement and the date of the TROs being made. Impact (yet to be assessed) on project costs.

Cause Transport Minister unsympathetic to case put forward for change / SNP hostility towards project. Legal challenge of proposal.

Risk Rating: 23.0

Significance: High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Catastrophic	NIL	Catastrophic	NIL
Expected	1500.00	0.00	52.00	0.00

Model Notes

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title Amendment to Traffic Regulations (sought)

Plan Owner Undefined

High Level Plan Description Give SE all practicable assistance to promote the Regulations change. Plan & programme TROs based on pessemistic (with hearing) scenario.

Fallback Plan Description

Title	Action Owner	Due
Encourage and assist SE as much as possible in order to promote change to regulations	K Rimmer	31-Jul-2008

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 342

Area of Risk: 7.2 MUDFA/Utilities

Event A8 crossing tunnel requires special design or BT data nest/cables require to be moved

Owner I Clark

Risk Area (OB) Project Specific > Other **Status:** Open

Description

Effect: Capex cost to cover BT data nest/cable move; additional design costs; delay while works to undertake move are carried out; additional tunnelling costs.

Cause Tram alignment at A8 crossing at Gogar co-incides BT data nests/cable (main coms link between Glasgow and Edinburgh)

Risk Rating: 23.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Catastrophic	NIL	Catastrophic	NIL
Min	1000.00		16.25	
Expected		0.00		0.00
Max	1500.00		16.25	

Model Notes Construction time expected to be 1 man year per nest with £1m cost. MUDFA costs of civils element for diversion could be up to £0.5m. It is not yet clear whether both or just one nest will require to be diverted. Costs to divert one nest is in base estimate. The second nest has been included in risk as discrete (i.e. costs known) but with a 50% chance of materialising. Residual risk if NIL based on premise that when works have been agreed with BT, their cost will be in the base estimate.

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title Agree protection of cables with BT

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description Diversion required

Title	Action Owner	Due
Confirmation of BT requirements to tie	I Clark	15-Oct-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 47
Area of Risk: 7.3 Infraco
Event: Completion of MUDFA works is delayed (due to late design/approvals) - late utility diversions in advance of Infraco works.
Owner: G Barclay
Risk Area (OB): Procurement > Poor Contractor Capabilities **Status:** Open

Description

Effect: Increase in price and time delay in the Infraco contract; Infraco could end up delay to commencement or with utility diversion and would have to price for or have to carry out unplanned re-sequencing; Claims from MUDFA as a result of being unable to proceed with works.

Cause: Poor design and review processes; cumbersome approvals process; reiterative design/approvals process.

Risk Rating: 23.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Catastrophic	Catastrophic	Moderate	NIL
Min	400.00	400.00	1.00	0.00
Expected	2400.00	2400.00	4.00	0.00
Max	4800.00	4800.00	8.00	0.00

Model Notes: 2 month delay in commencement to Infraco contract (after appointment) @ £2m per month. 2 month delay within MUDFA contract @ £400k per month. There are LDs of £50k per week for poor performance by MUDFA. This would not cover costs and would also be very difficult to recover.

Probability: Current Possible 50.00% Planned Residual Possible 50.00%

Title: Utilities Design Process and Timescale

Plan Owner: Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Review design timescales	J McAloon	30-Apr-2007
Micro management of design	J McAloon	31-Aug-2007
Revise design process	J Casserly	31-Aug-2007
Review tie design review	J Casserly	31-Aug-2007
Incentivisation of SDS	M Crosse	28-Sep-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 352
Area of Risk: 1.1 Land & Property
Event: Higher land compensation claims than anticipated
Owner: A Sim
Risk Area (OB): Environment > Other **Status:** Open
Description:
Effect: Additional uplift on compensation claims
Cause: Increase in land values

Risk Rating: 23.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Catastrophic	NIL	NIL	NIL
Min	0.00		0.00	
Expected		0.00		0.00
Max	5750.00		0.00	

Model Notes: Figures based on land compensation estimates. Probability based on the fact that there may be no claims.

Probability: Current Possible 70.00% Planned Residual NIL 0.00%

Title: Land compensation for high risk properties
Plan Owner: Undefined
High Level Plan Description: Negotiation and planning control
Fallback Plan Description:

Title	Action Owner	Due
Initiate early negotiations between DV and landowners	A Rintoul	28-Mar-2008
Liaise with CEC Planning	R McMaster	28-Mar-2008
Close out	A Sim	28-Mar-2008

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 354

Area of Risk: 1.1 Land & Property

Event Part 1 Claims for land and property - (Noise and Vibration)

Owner A Sim

Risk Area (OB) Procurement > Dispute & Claims **Status:** Open

Description

Effect: Possible successful claims resulting in increased costs to project with impact after construction

Cause Land and property values experience a net reduction in value as a result of the introduction of the Tram

Risk Rating: 23.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Catastrophic	NIL	NIL	NIL
Min	0.00		0.00	
Expected		0.00		0.00
Max	3300.00		0.00	

Model Notes Based on other Tram schemes the expected maximum impact is £3.3m with a 50% probability.

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title Reduce likelihood of valid Part 1 Claim

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Reduce noise at source - wheel/rail interface design	G Murray	28-Sep-2007
Reduce noise & light at track-side/stops - eg noise barriers, light shields	G Murray	28-Sep-2007
Reduce noise/light at receptor through design mitigation measures	G Murray	24-Dec-2012
Close out - inform base estimate	G Murray	30-Dec-2015

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 279

Area of Risk: 7.3 Infraco

Event Third party consents including Network Rail, CEC Planning, CEC Roads Department, Historic Scotland, Building Fixing Owner consent is denied or delayed

Owner T Glazebrook

Risk Area (OB) Environment > Permits, Consents & Approvals **Status:** Open

Description

Effect: Delay to programme; Risk transfer response by bidders is to return risk to tie; Increased out-turn cost if transferred and also as a result of any delay due to inflation.

Cause

Risk Rating:	23.0	Significance:	High
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Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Catastrophic	NIL	Catastrophic	NIL
Expected	1250.00	0.00	16.25	0.00

Model Notes Currently in control however, CEC may impose additional restrictions. In this event, there may not be enough float in the programme to cover this.

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title Obtain consents

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description Have clear and agreed plan with authorities giving consents by the required date

Title	Action Owner	Due
Identify fallback options	T Glazebrook	31-Aug-2007
CEC Planning - mock application by SDS	T Glazebrook	31-Dec-2007
Obtain critical consents prior to financial close	T Glazebrook	31-Jul-2008
Engagement with third parties to discussed and obtain prior approvals to plans	T Glazebrook	31-Jul-2008

Caveat: Undefined	Classification: Undefined
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Business Folder: TIE Ltd **Risk ID :** 893
Area of Risk: 2.9 TEL
Event: VE Process makes TEL Business Case undeliverable
Owner: A Richards

Risk Area (OB) **Status:** Open

Description

Effect: TEL Business Case becomes less undeliverable

Cause: VE process concentrates on reducing Capex to the detriment of Opex

Risk Rating: 22.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		OPEX Cost p.a. (£k)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	Moderate	Minor	NIL	NIL	Catastrophic	NIL
Expected	300.00	62.50	0.00	0.00	750.00	0.00

Model Notes

Probability: Current Remote 20.00% Planned Residual NIL 0.00%

Title: Ensure VE process does not make TEL Business Case become undeliverable

Plan Owner: Undefined

High Level Plan Description: Input into the VE process to ensure whole lifecycle costs are considered.

Fallback Plan Description

Title	Action Owner	Due
Make Tram Project Board aware of implications of VE proposals	A Richards	30-Apr-2007
TEL/Transdev involvement in VE Workshop process to ensure balance Capex/Opex	A Richards	30-Oct-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 986

Area of Risk: 5 PALIAMENTARY PROCESS/ APPROVALS

Event CEC failure to sign legal agreement - legal officer level

Owner D Fraser

Risk Area (OB) **Status:** Open

Description

Effect: Delay to commencement of contract

Cause Inadequate information supplied by tie.

Risk Rating:

Significance:

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	<input type="text" value="Catastrophic"/>	<input type="text" value="NIL"/>	<input type="text" value="Moderate"/>	<input type="text" value="NIL"/>
Min	2000.00		2.00	
Expected	2500.00	0.00	3.00	0.00
Max	3000.00		4.00	

Model Notes

Probability: Current 17.50% Planned Residual 0.00%

Title Provide necessary contractual information to legal team

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Tranparency of and value of risks to CEC from bespoke contract	G Gilbert	31-Aug-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 343
Area of Risk: 1.7 Miscellaneous
Event: Delay to completion of project
Owner: M Crosse
Risk Area (OB): External Influences > Economic **Status:** Open

Description

Effect: Inflation at 5% causes increased out-turn cost due to delay plus revenue loss

Cause: General delay to programme with various causes e.g. failure to obtain approvals on time; parliamentary processes, delays due to lack of prioritisation of BAA agreement with new owners

Risk Rating: 22.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
Catastrophic	NIL	NIL	NIL	NIL
Min	5900.00		0.00	
Expected	15200.00	0.00	0.00	0.00
Max	22600.00		0.00	

Model Notes: Assumes maximum impact 9 months delay, most likely impact 6 months delay and minimum impact of 3 months delay. The impact of this risk will likely remain the liability of the Funders. Inflation has been profiled across Infraco, MUDFA and Tramco contracts to produce overall figures.

Probability: Current Remote 20.00% Planned Residual NIL 0.00%

- Title
- Plan Owner
- High Level Plan Description
- Fallback Plan Description

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 52

Area of Risk: 7.3 Infraco

Event Amendments to design scope from current baseline and functional specification.

Owner T Glazebrook

Risk Area (OB) Environment > Permits, Consents & Approvals **Status:** Open

Description

Effect: Programme delay as a result of re-work; Programme delay due late receipt of change requirements and lack of resolution; Scope/cost creep (dealt with through change process); Project ultimately could become unaffordable.

Cause Political and/or Stakeholder objectives change or require design developments that constitute a change of scope; Planning Department requires scope over and above baseline scope in order to give approval (may be as a result of lack of agreement over interpretation of planning legal requirements).

Risk Rating: 22.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Catastrophic	NIL
Min	0.00		16.25	
Expected	0.00	0.00	16.25	0.00
Max	0.00		16.25	

Model Notes CEC to buy-in to project scope and funding availability. Capex change will now be dealt with through Change Process therefore capex impact is NIL. Late changes will result in delay to programme.

Probability: Current Remote 20.00% Planned Residual NIL 0.00%

Title tie/CEC liason

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Weekly critical issues meeting	T Glazebrook	31-Jul-2008
Close working relationship with CEC and stakeholders	L Murphy	31-Jan-2011

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 926
Area of Risk: 7.2 MUDFA/Utilities
Event: Safety incident during MUDFA Diversions - Gas/Power/Water
Owner: G Barclay
Risk Area (OB): Project Specific > Other **Status:** Open

Description

Effect: Injury to employee. Delay (potentially critical) due to HSE investigation and rework. PR risk to tie and stakeholders.

Cause: Major single safety incident during construction

Risk Rating: 22.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Health & Safety (N/A)		Reputation (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Major	NIL	Catastrophic	NIL	Major	NIL
Min	0.00		4.00		5.00		4.00	
Expected	0.00	0.00	8.50	0.00	5.00	0.00	4.00	0.00
Max	0.00		13.00		5.00		4.00	

Model Notes: Cost will be with MUDFA.

Probability: Current Remote 10.00% Planned Residual NIL 0.00%

Title: Follow Health and Safety Procedures

Plan Owner: Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
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Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 54
Area of Risk: 7.3 Infraco
Event Construction bond not available in the event of Infraco default
Owner B Dawson
Risk Area (OB) Procurement > Complexity of Contract **Status:** Open
 Structure
Description
Effect: Increase in cost and progreamme due to appointment of replacement contractor
Cause Contractor default e.g. insolvency.

Risk Rating: 21.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Catastrophic	NIL	Major	NIL
Min	0.00		8.00	
Expected	3300.00	0.00	10.00	0.00
Max	6300.00		12.00	

Model Notes PWC advise worst feasible case £6.3m.

Probability: Current Improbable 1.00% Planned Residual NIL 0.00%

Title Construction Bond
Plan Owner Undefined
High Level Plan Description Negotiate on wording but maintain level at 10% for Phase 1a.
Fallback Plan Description Also ensure Milestones arent forward-loaded.

Title	Action Owner	Due
Joint and several liability of consortium members + parent company guarantees prior to award	B Dawson	31-Jan-2008

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 134
Area of Risk: 7.3 Infraco
Event Compensation paid to Train Operating Companies
Owner S Clark
Risk Area (OB) Client Specific > Poor Project Intelligence **Status:** Open

Description

Effect: Increased compensation paid to Train Operating Companies

Cause Network Rail possessions over and above that estimate are required

Risk Rating: 21.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Catastrophic	NIL	NIL	NIL
Min	500.00	0.00	0.00	0.00
Expected	2000.00		0.00	
Max	4000.00	0.00	0.00	0.00

Model Notes Risk will transfer to Infraco on contract award. Difficult to quantify. Indicative costs could be £1m per event (see e-mail D Leeming 08-Aug-06)

Probability: Current Improbable 5.00% Planned Residual NIL 0.00%

Title Transfer Possessions Risk to Infraco

Plan Owner Undefined

**High Level Plan
Description**

**Fallback Plan
Description**

Title	Action Owner	Due
Ensure NR Possession risk is backed off to Infraco	G Gilbert	29-Jul-2007
Review Infraco programme to ensure it is robust with respect to NR Possessions	T Hickman	30-Aug-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 888

Area of Risk: 2.2 Transdev

Event Transdev refuse to operate system on safety ground or apply overly restrictive procedures that are not directly the responsibility of Infraco (ROGS Competent Person agrees with this)

Owner A Richards

Risk Area (OB) **Status:** Open

Description

Effect: Delay to commencement of service, additional cost both for delay and rectification of the issue

Cause Design, construction and/or testing does not meet Transdev requirements and gain approval from the ROGS Competent Person

Risk Rating: 21.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Catastrophic	Minor	Catastrophic	Insignificant
Min	3000.00		12.00	
Expected		62.50		1.00
Max	6000.00		24.00	

Model Notes

Probability: Current Improbable 5.00% Planned Residual Improbable 2.50%

Title Transdev involvement

Plan Owner Undefined

High Level Plan Description Involve Operator fully in the design, construction and testing of the system.

Fallback Plan Description

Title	Action Owner	Due
Ensure Infraco Agreement requires Operator to be consulted on appropriate issues	B Dawson	28-Dec-2007
Involve Transdev fully in design, construction and testing/review process.	S Clark	30-Dec-2010

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 1010

Area of Risk: 7.3 Infraco

Event Occurrence of termination or omission of Infraco Works if permission to resume not granted by tie within 6 months

Owner S Clark

Risk Area (OB)

Status: Open

Description

Effect: Project suspension or cancellation

Cause

Risk Rating: 21.0

Significance: High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
Catastrophic	NIL	NIL	NIL	NIL

Expected 10000.00 0.00 0.00 0.00

Model Notes

Probability: Current Improbable 1.00% Planned Residual NIL 0.00%

Title Partial Suspension

Plan Owner Undefined

**High Level Plan
Description**

**Fallback Plan
Description**

Title	Action Owner	Due
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Suspensions are generally due to Infraco default. If tie responsibility - unlikely to apply to whole of works and partial suspension could be deployed for affected area.	S Clark	31-Jan-2011
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Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 1013

Area of Risk: 7.3 Infraco

Event Indirect Losses sustained in by Third Parties claiming against tie or Infraco or because of third party agreements or land consents

Owner S Clark

Risk Area (OB) Status: Open

Description

Effect: Additional cost

Cause

Risk Rating: 21.0 Significance: High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
Catastrophic	NIL	NIL	NIL	NIL

Expected 2000.00 0.00 0.00 0.00

Model Notes

Probability: Current Improbable 1.00% Planned Residual NIL 0.00%

Title Programme and Methodologies

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Agree programme and methodologies with significant Third Parties	S Clark	31-Jan-2011

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 903
Area of Risk: 7.4 Tramco
Event: Procurement challenge by Tram bidders
Owner: D Powell

Risk Area (OB) **Status:** Open

Description

Effect: prgramme risk -worst case is to start again

Cause: Successful challenge from unsuccessful tram bidder

Risk Rating: 21.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Catastrophic	NIL

Expected 0.00 0.00 25.00 0.00

Model Notes Assume fast re run of procurement programme with same bidders

Probability: Current Improbable 1.00% Planned Residual NIL 0.00%

Title Ensure tie lawyers vet all stages of the process

Plan Owner Undefined

High Level Plan Description Ensure process meets all aspects of EU procurement law

Fallback Plan Description

Title	Action Owner	Due
Ensure process meets all aspects of EU procurement law	D Powell	01-Oct-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 905
Area of Risk: 7.4 Tramco
Event: Tramco Insolvency
Owner: D Powell

Risk Area (OB): **Status:** Open

Description

Effect: Trams are not delivered;legal costs;delay

Cause: Not controlled by Project

Risk Rating: 21.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Catastrophic	NIL	Catastrophic	NIL

Expected 25000.00 0.00 52.00 0.00

Model Notes: Assumes no trams delivered and no recourse as transfer of title effected on any one tram

Probability: Current Improbable 1.00% Planned Residual NIL 0.00%

Title: Solvency of Tramco monitoring

Plan Owner: Undefined

High Level Plan Description: Carry out regular financial health checks on Tramco

Fallback Plan Description:

Title	Action Owner	Due
Pre contract Award health check	D Powell	28-Aug-2007
Annual health Check on Tramco post contract Award	D Powell	01-Apr-2010

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 906
Area of Risk: 7.4 Tramco
Event: Tramco pricing risk between now and awarding contract
Owner: D Powell
Risk Area (OB): **Status:** Open
Description:
Effect: price may go up/down
Cause: Currency fluctation Euro/Sterling

Risk Rating: 21.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Catastrophic	NIL	NIL	NIL
Min	0.00		0.00	
Expected	1500.00	0.00	0.00	0.00
Max	3000.00		0.00	

Model Notes

Probability: Current Improbable 5.00% Planned Residual NIL 0.00%

Title: Tramco price fixing
Plan Owner: Undefined
High Level Plan Description: Ensure long bid validities quoted in sterling until novation completed
Fallback Plan Description:

Title	Action Owner	Due
Ensure long bid validities quoted in sterling until novation completed	D Powell	28-Aug-2007
Preferred TRAMCO to hedge currency risk on appointment of preferred bidder	D Powell	25-Sep-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 173
Area of Risk: 7.3 Infraco
Event: Tramway runs through area of previously unidentified contamination and material requires to be removed and replaced (dig and dump).
Owner: T Glazebrook
Risk Area (OB): Environment > Site Characteristics **Status:** Open
Description:
Effect: Increase in costs to remove material to special and other tip.
Cause: Uncertainty over extent of contaminated land on route
Risk Rating: 21.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Catastrophic	NIL	NIL	NIL
Min	1368.00		0.00	
Expected		0.00		0.00
Max	8208.00		0.00	

Model Notes

Average depth of material assumed to be 4m over an area of 120x60m i.e. volume of material and consequently infill required is 28,800m³. Probability relates to the likelihood that all material will require to be removed - 0.05. Maximum impact is based on 20% material contaminated and required to be removed to a special tip and the remainder removed to a normal tip. Minimum impact based on 5% material contaminated and required to be removed to a special tip. Risk is uniform as information to surmise a most likely scenario is not available. NB. Impact prices not assessed yet and also to be correlated to SC93.

Probability: Current Improbable 2.50% Planned Residual NIL 0.00%

Title: tramway runs through potential contaminated land

Plan Owner: Undefined

High Level Plan Description:

Fallback Plan Description:

Title	Action Owner	Due
Issue containment and gi report to Infraco bidders	B Dawson	02-Mar-2007
tie to obtain ground investigation and contamination reports from SDS	A McGregor	30-Mar-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 924
Area of Risk: 7.3 Infraco
Event: Very high voltage underground electricity transmission cables are encountered and damaged during Infraco Works
Owner: S Clark

Risk Area (OB) **Status:** Open

Description

Effect: Potential to cause damage and consequent accident during work; Scottish Power delay works if cable shut down notice periods not adhered to; Significant injury (potential for multiple deaths) caused to workforce; Delay in project section.

Cause: Tram crosses high voltage transmission cables in 4 areas (2x Leith Walk - 275kV; 2 times bridge abutment - 132kV); Design found to be inadequate; Infraco do not follow design requirements; Cable not shut down to Scottish Power requirements.

Risk Rating: 21.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Health & Safety (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Moderate	Major	Catastrophic	Catastrophic
Min	0.00	0.00	4.00	4.00	5.00	5.00
Max	0.00	0.00	4.00	13.00	5.00	5.00

Model Notes: Cost of damage liability lays with Infraco/SDS; Capex cost of design solution contained within Risk 912.

Probability: Current Improbable 3.00% Planned Residual Improbable 3.00%

Title: Develop appropriate engineering solution

Plan Owner: Undefined

High Level Plan Description

Fallback Plan Description: Determine track slab depth and move/protect cables as required

Title	Action Owner	Due
Ensure notice periods for cable shut down are understood by Infraco and incorporated into programme	S Clark	31-Aug-2007
Ensure Infraco understand and agree with design requirements near to cables.	T Condie	28-Sep-2007
Ensure method statements refer to and deal with very high voltage cables adequately	S Clark	28-Sep-2007
Ensure Infraco follow relevant safety procedures during construction	T Condie	30-Sep-2008

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 928
Area of Risk: 7.3 Infraco
Event: Safety incident during construction
Owner: S Clark
Risk Area (OB): Project Specific > Other **Status:** Open

Description

Effect: Delay (potentially critical) due to HSE investigation and rework. PR risk to tie and stakeholders.

Cause: Major single safety incident (including a dangerous occurrence) during construction

Risk Rating: 21.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Health & Safety (N/A)		Reputation (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Major	NIL	Catastrophic	NIL	Major	NIL
Min	0.00		4.00		5.00		4.00	
Expected	0.00	0.00	8.50	0.00	5.00	0.00	4.00	0.00
Max	0.00		13.00		5.00		4.00	

Model Notes: Cost will be with Infraco.

Probability: Current Improbable 5.00% Planned Residual NIL 0.00%

Title: Safety Incident Avoidance/Reduction Strategy

Plan Owner: Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Site Supervisors to be appointed by tie	S Clark	28-Feb-2007
Develop and Implement Incident Management Processes	T Condie	27-Apr-2007
All Site Staff to get CSCS or equivalent	C McLauchlan	30-Apr-2008
Safety Induction to be carried out for all site staff	T Condie	31-Dec-2010
HSQE Audits, site inspections and Management Safety Tours to be carried out	T Condie	31-Dec-2010

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 931
Area of Risk: 7.3 Infraco
Event: Unknown or abandoned assets impacts scope of Infraco work
Owner: T Glazebrook
Risk Area (OB): Client Specific > Poor Project Intelligence **Status:** Open

Description

Effect: Re-design and delay as investigation takes place and solution implemented; Increase in Capex cost as a result of additional works.

Cause: Utilities assets uncovered during construction that were not previously accounted for; unidentified abandoned utilities assets; known redundant utilities; unknown live utilities; unknown redundant utilities.

Risk Rating: 20.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Health & Safety (N/A)		Reputation (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	Major	NIL	NIL	NIL	NIL	NIL	Major	NIL
Min	500.00		0.00		0.00		4.00	
Expected		0.00		0.00		0.00		0.00
Max	1000.00		0.00		0.00		4.00	

Model Notes: Risk to be transferred to Infraco

Probability: Current Frequent 90.00% Planned Residual NIL 0.00%

Title: Detailed investigation and strategy development

Plan Owner: Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
GPR surveys in areas where there are likely to be services	T Glazebrook	01-Apr-2007
MUDFA trial holes to verify GPR surveys	P Douglas	31-Jan-2009

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 914
Area of Risk: 7.2 MUDFA/Utilities
Event: Statutory Utility Companies unable to meet design approval/acceptance turnaround time to meet programme
Owner: T Glazebrook

Risk Area (OB) **Status:** Open

Description

Effect: Additional period required for design approval/acceptance turnaround

Cause: Required approval/acceptance turnaround time does not reflect SUC standard practice; SUCs do not have enough resource or process capability to achieve 20 day turnaround

Risk Rating: 20.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Major	NIL	Major	NIL

Expected 880.00 0.00 8.00 0.00

Model Notes Probability varies from utility to utility.

Probability: Current Frequent 95.00% Planned Residual NIL 0.00%

Title SUC review periods

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
SDS to obtain consent for design in accordance with programme requirements - SGN and Scottisk Power	M Blake	30-Dec-2007
SDS to obtain consent for design in accordance with programme requirements - Scottish Water and all Telecoms	I Clark	31-Dec-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 21

Area of Risk: 7.2 MUDFA/Utilities

Event Design requires that Utilities are diverted outside of LoD

Owner T Glazebrook

Risk Area (OB) Project Specific > Design Complexity **Status:** Open

Description

Effect: Additional design; additional land purchase required and consequent contact with landowners; design may result in increased work quantities due to extent of diversions; potential increased duration of works.

Cause Design constraints e.g. presence of other utilities, proximity of LoD boundary, diversion technical requirements etc.

Risk Rating: 19.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Reputation (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	Major	Moderate	Moderate	Moderate
Min	100.00	0.00	4.00	2.00	3.00	3.00
Expected	250.00		8.50		3.00	
Max	500.00	0.00	13.00	4.00	3.00	3.00

Model Notes Capex impact will transfer to base estimate when designs confirmed but likely to remain open until towards end of MUDFA works. Consequently residual risk capex impact is NIL.

Probability: Current Probable 80.00% Planned Residual Possible 50.00%

Title Understand and control location of diversions

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
GIS used to identify diversions outwith LoDs and respective landowners	E Cropley	31-Aug-2007
SDS to aim to design diversions within LoD	T Glazebrook	28-Dec-2007
SDS to undertake design checks to ensure diversion in LoD	T Glazebrook	28-Dec-2007
AMIS to seek to divert under Statutory Utility powers where outwith LoD	G Barclay	28-Dec-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 105

Area of Risk: 7.3 Infraco

Event: Exhumation of archaeological finds/burials

Owner: S Clark

Risk Area (OB): Environment > Site Characteristics **Status:** Open

Description

Effect: Delay in construction programme

Cause: Encountering archaeological finds/burials/munitions during construction

Risk Rating: 19.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	Major	NIL
Min	0.00		4.00	
Expected	150.00	0.00	8.50	0.00
Max	500.00		16.00	

Model Notes: £300k in estimate for delay and disruption caused by interference by Achaological Officer.

Probability: Current Probable 85.00% Planned Residual NIL 0.00%

Title: Agree process with City Archaeologists

Plan Owner: Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Meet Archaeologist	S Clark	28-Feb-2007
Identify hotspots	S Clark	28-Feb-2007
Agree protocol	T Condie	20-Apr-2007
AMIS to re-programme works accounting for hot-spots	S Clark	30-Apr-2007
Check to ensure that AMIS programme has adequate float	J McAloon	14-May-2007
Review Infraco programme regarding archaeological hotspots and ensure adequate programme float	T Hickman	31-Jul-2007
Assess Infraco programme to determine if float contained within the high risk areas	T Hickman	28-Aug-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd

Risk ID : 938

Area of Risk: 1.3.1 NR Immunisation Project

Event ties overall interface with Network Rail, including consents, approvals and involvement in projects prevents project success.

Owner S Bell

Risk Area (OB) **Status:** Open

Description

Effect: Drop dead date of October 2009 not achieved; Costs increase beyond budget.

Cause Failure to reach agreement on roles and requirements

Risk Rating: 19.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Reputation (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Major	NIL	Moderate	NIL
Min	0.00		4.00		3.00	
Expected		0.00		0.00		0.00
Max	0.00		13.00		3.00	

Model Notes

Probability: Current Probable 80.00% Planned Residual NIL 0.00%

Title Control plan to ensure Immunisation Programme requirements are met

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Establish critical path and importance with Network Rail Senior Management Team	T Glazebrook	30-Mar-2007
Employ dedicated, competent Project Manager to oversee development, programme and implementation	S Bell	10-Sep-2007
Facilitate the development of a shared view on requirements	S Bell	28-Sep-2007
SDS to prepare requirements specification and necessary technical reports	T Glazebrook	30-Nov-2007
Support legal agreements/approval process with Network Rail	S Bell	31-Dec-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 271

Area of Risk: 5 PALIAMENTARY PROCESS/ APPROVALS

Event Failure to process prior approvals applications within 8 weeks

Owner T Glazebrook

Risk Area (OB) Client Specific > Inadequacy of Business Case **Status:** Open

Description

Effect: Delay and disruption to Infraco programme

Cause Inadequate quality of submission of approval. Partial submission of package. Programme compression. Lack of CEC resources.

Risk Rating: 19.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Major	NIL	Major	NIL
Min	750.00		8.50	
Expected	750.00	0.00	8.50	0.00
Max	1000.00		8.50	

Model Notes

Probability: Current Probable 80.00% Planned Residual NIL 0.00%

Title Gain agreement to Inputs

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Finalise alignments and gain agreement from CEC	T Craggs	29-Dec-2006
Final agreement to be approved by Roads Authority, CEC Promoter, CEC in-house legal and tie	T Craggs	28-Feb-2007
Agree approvals submission arrangements with CEC to align with SDS design programme and procurement programme.	T Glazebrook	31-Mar-2008
Where appropriate increase case officer resource to cope with programme compression	D Fraser	28-Aug-2008
Assure the quality and timing of submissions	T Glazebrook	29-Aug-2008

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 983
Area of Risk: 4.3 Business Case
Event All five TROs are subject to public hearings
Owner K Rimmer
Risk Area (OB) **Status:** Open
Description
Effect: Additional cost of up to £1m
Cause

Risk Rating: 18.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Major	NIL	NIL	NIL
Min	750.00		0.00	
Expected	750.00	0.00	0.00	0.00
Max	750.00		0.00	

Model Notes TRO no.5 definitely subject to public hearing. TROs 1, 2, 3, & 4 may be subject to public hearing.

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title
Plan Owner
High Level Plan Description
Fallback Plan Description

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd

Risk ID : 1011

Area of Risk: 7.3 Infraco

Event Occurrence of any delay caused by Utilities Works, MUDFA Works, breach of Third Party Agreements, Unplanned City Events, New Utilities and/or any other event referred to as a Compensation Event

Owner S Clark

Risk Area (OB)

Status: Open

Description

Effect: Delay and additional cost

Cause

Risk Rating: 18.0

Significance: High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Major	NIL	NIL	NIL

Expected 1000.00 0.00 0.00 0.00

Model Notes

Probability: Current Possible 40.00% Planned Residual NIL 0.00%

Title Sequenced Programme

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
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Construction programme has been sequenced and interleaved with that of Infraco's. Infraco programme to be shared with CEC and significant third parties and monitored on a period by period basis to avoid programme clashes.	S Clark	31-Jan-2011
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Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 940

Area of Risk: 1.3.1 NR Immunisation Project

Event Infraco not competent to provide design requirements/challenge design of Immunisation Works

Owner S Bell

Risk Area (OB) **Status:** Open

Description

Effect: Immunisation Works requirements not adequately specified; Issues arise during Tram commissioning.

Cause SDS not novated to Infraco; SDS requirements in relation to Immunisation Works after novation not clearly defined; tie/Infraco and Infraco/SDS contracts not aligned or integrated.

Risk Rating: 18.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Reputation (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Major	NIL	Minor	NIL
Min	0.00		4.00		1.50	
Expected		0.00		0.00		0.00
Max	0.00		13.00		1.50	

Model Notes

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title Understand and act on SDS novation items

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Clarify with SDS that they understand all of the issues	T Glazebrook	30-Apr-2007
Review proposed novation and Infraco contract regarding Network Rail interface works and in particular Immunisation Works within that	B Dawson	28-Sep-2007
Review emerging risk allocation and budget provision for Infraco	G Gilbert	28-Sep-2007
Clarify that bidders understand issues relating to design requirements for Immunisation Works (post Consolidated Proposals)	B Dawson	28-Sep-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 989

Area of Risk: 5 PALIAMENTARY PROCESS/ APPROVALS

Event CEC lack the opportunity for informed decision making

Owner M Crosse

Risk Area (OB) **Status:** Open

Description

Effect: Delay to project. Increased financial liability. Impact on quality.

Cause tie fail to provide CEC with all relevant and necessary information in a timeous manner. tie fail to follow agreed protocols.

Risk Rating: **Significance:**

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	<input type="text" value="Major"/>	<input type="text" value="NIL"/>	<input type="text" value="Major"/>	<input type="text" value="NIL"/>
Min	500.00		4.00	
Expected	750.00	0.00	8.00	0.00
Max	1000.00		12.00	

Model Notes

Probability: Current 50.00% Planned Residual 0.00%

Title Develop agreement between tie and CEC officers in order to comply with CEC corporate governance

Plan Owner Undefined

**High Level Plan
Description**

**Fallback Plan
Description**

Title	Action Owner	Due
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Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd

Risk ID : 990

Area of Risk: 5 PALIAMENTARY PROCESS/ APPROVALS

Event CEC carry financial impact of uncertified designs provided to Infracore

Owner D Fraser

Risk Area (OB) **Status:** Open

Description

Effect: Modifications required to the designs post-contract award resulting in additional costs

Cause SDS are behind programme with design review certificates and tie have decided not to extend programme period to account for this.

Risk Rating: **Significance:**

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Major	NIL	NIL	NIL
Min	500.00		0.00	
Expected	750.00	0.00	0.00	0.00
Max	1000.00		0.00	

Model Notes

Probability: Current 50.00% Planned Residual 0.00%

Title Make necessary allowance for realisation of this risk

Plan Owner Undefined

**High Level Plan
Description**

**Fallback Plan
Description**

Title	Action Owner	Due
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Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 59
Area of Risk: 7.3 Infraco
Event Infraco fails to deliver to programme within Liquidated Damages cap
Owner S Clark
Risk Area (OB) **Status:** Open

Description

Effect: Stakeholder criticism, negative PR, extended programme delay to system.

Cause Poor performance (time) by Infraco during construction

Risk Rating: 18.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Reputation (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Moderate	Minor	Major	Moderate
Min	0.00	0.00	0.00	0.00	4.00	3.00
Max	0.00	0.00	8.00	4.00	4.00	3.00

Model Notes Linked to Risk 57 (PROC25) which assesses in terms of increase in capex. Delay of upto 8 weeks with major media reaction.

Probability: Current Possible 70.00% Planned Residual Possible 40.00%

Title Reduce Infraco delay

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Detailed evaluation of Infraco programme to ensure it is robust	T Hickman	28-Aug-2007
Ensure contractual controls are in place	G Gilbert	28-Aug-2007
Agree optimum programme with preferred Infraco bidder	B Dawson	31-Aug-2007
Robust programme monitoring to be established to detect slippage	T Hickman	31-Dec-2010

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 66
Area of Risk: 7.3 Infraco
Event: Inadequate system integration
Owner: D Powell
Risk Area (OB): Procurement > Information Management **Status:** Open

Description

Effect: Time delay and interface problems between specialist contractors / sub systems.

Cause: Infraco and Tram systems not compatible and/or contracts not aligned.

Risk Rating: 18.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Reputation (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	Major	NIL	Moderate	NIL	Major	NIL
Min	0.00		0.00		4.00	
Expected	1000.00	0.00	4.00	0.00	4.00	0.00
Max	3000.00		12.00		4.00	

Model Notes: Assume 3 month delay during commissioning - £1m per month (but really shouldnt be a risk that tie should end up owning).

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title: System Integration

Plan Owner: Undefined

High Level Plan Description: Technical Evaluation + Contractual Mechanisms

Fallback Plan Description: Close scrutiny of progress, some issues should be apparent from Contract Sections A + B.

Title	Action Owner	Due
Obtain and validate systems integration plan from Infraco	D Powell	31-Jul-2007
Coclude Infraco/Tramco and SDS Infraco facilitated negotiations	D Powell	30-Nov-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 182
Area of Risk: 7.3 Infraco
Event: Delay in Infraco construction programme as a result of exceptional weather conditions
Owner: S Clark
Risk Area (OB): Environment > Other **Status:** Open

Description

Effect: Contractor claims for delay in construction programme

Cause: Unusually adverse weather conditions

Risk Rating: 18.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Major	NIL	Moderate	Moderate
Min	500.00	0.00	2.00	2.00
Max	1000.00	0.00	4.00	4.00

Model Notes

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title: Establish weather related claims criteria

Plan Owner: Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Inclement weather to be contractors risk - one bidder considering its position	B Dawson	28-Aug-2007
Establish reporting process and criteria to ensure that Infraco do not make incorrect claims	S Clark	30-Nov-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd Risk ID : 172

Area of Risk: 7.3 Infraco

Event Tramway runs through area of possible contamination and special foundation is required to cope with unstable ground

Owner T Glazebrook

Risk Area (OB) Environment > Site Characteristics Status: Open

Description

Effect: Increase in costs to provide special foundation solution

Cause Area of possible contamination and unstable ground (unlicensed tip) has been highlighted during desk study immediately to east of Gogar Burn - investigation for CERT project indicates that this consists of building rubble and domestic waste.

Risk Rating: 17.0

Significance: High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL
Min	100.00		0.00	
Expected	200.00	0.00	0.00	0.00
Max	300.00		0.00	

Model Notes SDS have produced a report which outlines a design solution to this risk. The cost will be approximately £100k. Risk left open in case the money for this solution will need to come from the risk allocation.

Probability: Current Frequent 95.00% Planned Residual NIL 0.00%

Title Establish ground conditions

Plan Owner Undefined

High Level Plan

Description

Fallback Plan

Description

Title	Action Owner	Due
Obtain ground investigation information.	A McGregor	09-Feb-2007
Monitor design progress and include costs in base estimate.	A McGregor	28-Feb-2007
Include SI Report and Information in next issue of information to Infraco.	B Dawson	30-Mar-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 865
Area of Risk: 7.3 Infraco
Event: Asbestos found during demolition works and excavations for construction
Owner: T Condie
Risk Area (OB): **Status:** Open

Description

Effect: Cost and delay during investigation and removal

Cause: Buildings contain asbestos that was not uncovered during surveys

Risk Rating: 17.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL
Min	60.00		0.00	
Expected		0.00		0.00
Max	150.00		0.00	

Model Notes Cost of investigation and removal of £1k per day with an estimated 60 to 150 days of delay. Cost of demolition contractor delays i.e. standing not included in model.

Probability: Current Frequent 90.00% Planned Residual NIL 0.00%

Title

Plan Owner

High Level Plan Description

Fallback Plan Description

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 178

Area of Risk: 7.3 Infraco

Event Infraco due diligence process reveals that design rework will be required after novation of SDS.

Owner G Gilbert

Risk Area (OB) Procurement > Late Contractor Involvement **Status:** Open

Description

Effect: Bids will be higher than envisaged in base estimate as Infraco will price for re-work.

Cause Procurement Strategy novates SDS to InfraCo after Detailed Design; Limited input on buildability from Infraco.

Risk Rating: 16.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL

Expected 500.00 0.00 0.00 0.00

Model Notes

Although bidders are allowed to undertake due diligence etc on the SDS design and as a consequence a fixed cost will be in the bid, there is still a risk at this stage of the project that there will be a price increase as the bidder will include for it. This variability associated with this risk disappears on contract award. Maximum impact based on 25% additional design cost and associated re-work.

Probability: Current Probable 75.00% Planned Residual NIL 0.00%

Title Capture bidder buildability input on design

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Undertake bidder due diligence on designs and apply value engineering within the bid process to capture bidder buildability input	G Gilbert	28-Sep-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 132

Area of Risk: 7.3 Infraco

Event Increase in off-route junction improvements, certain junctions requiring realignment of kerbs etc

Owner T Glazebrook

Risk Area (OB) Project Specific > Design Complexity **Status:** Open

Description

Effect: Increase in design costs.

Cause Realignment of existing road geometry required

Risk Rating: 16.0 **Significance:** High

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL
Min	0.00		0.00	
Expected	250.00	0.00	0.00	0.00
Max	500.00		0.00	

Model Notes CEC fund wider area impact construction costs

Probability: Current Probable 80.00% Planned Residual NIL 0.00%

Title Increase in off-route junction improvements, certain junctions requiring realignment of kerbs etc

Plan Owner Undefined

**High Level Plan
Description**

**Fallback Plan
Description**

Title	Action Owner	Due
Increase in off-route junction improvements, certain junctions requiring realignment of kerbs etc	A Sim	28-May-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 179
Area of Risk: 7.3 Infraco
Event: Construction causes structural damage to 3rd party property resulting programme delay
Owner: B Dawson
Risk Area (OB): Procurement > Dispute & Claims **Status:** Open

Description

Effect: Delay to project
Cause: Construction impacts cause distress to surrounding buildings.

Risk Rating: 14.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Major	NIL
Min	0.00		4.00	
Expected	0.00	0.00	8.00	0.00
Max	0.00		12.00	

Model Notes An allowance of £500k is in the estimate for deductibles on OCIP claims where tie is liable. This is for all claims - not just for third liability claims. These costs should be passed to contractor if contractor has been negligent.

Probability: Current Remote 10.00% Planned Residual NIL 0.00%

Title 3rd party claims prevention and management strategy

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Ensure Infraco contractors understand 3rd party obligations	G Gilbert	30-Mar-2007
Develop and implement 3rd Party Management system to deal with impacts	M Connelly	29-Jun-2007
Undertake dilapidation surveys pre-construction	S Clark	31-Aug-2007
Ensure Infraco bidders undertake due diligence on dilapidation surveys and that this risk is transferred to Infraco	B Dawson	28-Sep-2007
Following surveys, obtain quotation for insurance cover extension	T Kinloch	28-Sep-2007
Audit performance against obligations	P Douglas	30-Sep-2008

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 244

Area of Risk: 7.3 Infraco

Event People with disabilities are unable to access Tram Service

Owner S Clark

Risk Area (OB) Procurement > Poor Contractor Capabilities **Status:** Open

Description

Effect: Breach of DDA legislation, costs to rectify and negative PR

Cause Inadequate provision for people with disabilities

Risk Rating: 14.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Reputation (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	Insignificant	NIL	NIL	NIL	Major	Minor
Min	0.00	0.00	0.00	0.00	4.00	2.00
Max	25.00	0.00	0.00	0.00	4.00	2.00

Model Notes Treatment includes ensuring the design allows all people to access the service NB. Hazard log places responsibility with Tram Design however, stops, information etc etc also should be compliant.

Probability: Current Remote 17.50% Planned Residual Improbable 3.00%

Title Transfer DDA risk to contractors and monitor compliance

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Build DDA requirements into Infraco	B Dawson	29-Sep-2006
Build DDA requirements into Tramco	D Powell	29-Sep-2006
Involve disability groups in consultations	M Connelly	28-Dec-2007
Monitor DDA compliance during construction	S Clark	31-Dec-2010

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 302
Area of Risk: 7.3 Infraco
Event: Delay or price increase due to steel shortage
Owner: B Dawson
Risk Area (OB): Project Specific > Other **Status:** Open

Description

Effect: Long lead times, additional cost due to inflation, programme delay.

Cause: Steel shortage due to global demand and ongoing Corus transfer of rail production facility

Risk Rating: 14.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Major	NIL	Moderate	NIL
Min	500.00		0.00	
Expected		0.00		0.00
Max	1000.00		8.00	

Model Notes: Capex assessment based on a requirement for 5600 tonnes of steel with up to £100 per tonne increase in price

Probability: Current Remote 20.00% Planned Residual NIL 0.00%

Title: Early procurement of long-lead items

Plan Owner: Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Obtain from Infraco bidders details and dates for long-lead procurement items	B Dawson	31-Aug-2007
Include early procurement of long-lead items in Infraco mobilisation agreement	B Dawson	28-Sep-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 115
Area of Risk: 7.3 Infraco
Event: Planned work at interface with Network Rail is delayed
Owner: S Clark
Risk Area (OB): Environment > Permits, Consents & Approvals **Status:** Open
Description:
Effect: Time delay and resulting cost increase
Cause: Network Rail cancels planned possessions
Risk Rating: 14.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Major	NIL	Major	Minor
Min	350.00	0.00	4.00	1.00
Expected	750.00		8.50	
Max	2000.00	0.00	13.00	2.00

Model Notes: By ensuring Infraco have adequate contingency plans (or agreements) in place with Network Rail, critical programme risk should be reduced.

Probability: Current Remote 10.00% Planned Residual Improbable 3.00%

Title: Network Rail possessions strategy
Plan Owner: Undefined

High Level Plan Description:

Fallback Plan Description:

Title	Action Owner	Due
Ensure possession requirements are discussed (and booked) with Network Rail well in advance	S Clark	31-Oct-2007
Book contingency possessions	T Hickman	31-Dec-2007
Ensure Infraco agree contingency plans with Network Rail	S Clark	01-Oct-2008

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 336
Area of Risk: 3 DESIGN
Event Design assumptions lead to Tram noise and vibration measures being inadequate during operation
Owner T Glazebrook
Risk Area (OB) Procurement > Information Management **Status:** Open

Description

Effect: Tram design requires to be re-worked; Post construction elements need to be adjusted or re-constructed or additional noise and vibration measures need to be incorporated.

Cause Adeqaute scope and extent of noise and vibration prevention measures/requirements are not provided to SDS; Specifications relating o Tram noise provided by Tramco are optimistic.

Risk Rating: 14.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Major	NIL	NIL	NIL
Min	100.00		0.00	
Expected		0.00		0.00
Max	1000.00		0.00	

Model Notes

Probability: Current Remote 10.00% Planned Residual NIL 0.00%

Title

Plan Owner

**High Level Plan
Description**

**Fallback Plan
Description**

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 880
Area of Risk: 7.1.1 Invasive Species
Event: Invasive Species eradication methodology does not work - species reinvade after 3 years
Owner: D Burns

Risk Area (OB) **Status:** Open

Description

Effect: Invasive species not fully eradicated.

Cause: Inappropriateness of Invasive Species Eradication Proposals e.g. incorrect chemicals used; contractor did not follow proposal; areas adjacent to LOD not eradicated and re-growth ingresses into LOD area

Risk Rating: 14.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Environmental (N/A)		OPEX Cost p.a. (£k)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	NIL	NIL	Major	Minor	Moderate	Moderate
Min	0.00	0.00	0.00	0.00	4.00	2.00	100.00	100.00
Max	0.00	0.00	0.00	0.00	4.00	2.00	250.00	250.00

Model Notes: Contractor methodology will be approved and confirmed through site supervision. Therefore, risk not transferred to contractor for period after eradication cycles. tie retains an Opex risk.

Probability: Current Remote 17.50% Planned Residual Possible 50.00%

Title: Monitor / Review Effectiveness
Plan Owner: Undefined
High Level Plan Description: SDS Proposals for Eradication - Review
Fallback Plan Description:

Title	Action Owner	Due
Obtain eradication methodology (including chemicals) and SDS to approve	D Burns	30-Apr-2007
Undertake site supervision to ensure contractor using correct methodology	D Burns	30-Sep-2009
Build in margin of eradication either side of LOD - NOT WITHIN CURRENT SCOPE	Undefined	30-Sep-2009
Pursue adjacent landowners to undertake or pay for eradication on adjacent land (as required by law): NOT WITHIN CURRENT SCOPE	Undefined	30-Sep-2009

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 978

Area of Risk: 5 PALIAMENTARY PROCESS/ APPROVALS

Event TTROs mirror TROs - this is potentially legally challengeable.

Owner K Rimmer

Risk Area (OB) **Status:** Open

Description

Effect: Legal challenge leading to delay in start of construction. Delay in gaining TRO extends beyond that which can be handled by Tram Strategy.

Cause Programme means that permanent TROs are not available at the start of construction (starts using TTROs).

Risk Rating: 14.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Major	NIL
Min	0.00		6.00	
Expected	0.00	0.00	8.00	0.00
Max	0.00		12.00	

Model Notes

Probability: Current Remote 10.00% Planned Residual NIL 0.00%

Title TTROs mirror TROs

Plan Owner Undefined

High Level Plan Description TRO Strategy minimises (as far as possible) anomalies.

Fallback Plan Description

Title	Action Owner	Due
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Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 973
Area of Risk: 7.1.3 Depot
Event Subsidence on Network rail Land by contractor
Owner J Buchanan

Risk Area (OB) **Status:** Open

Description

Effect: Delayed trains, Programme

Cause Depot Excavations

Risk Rating: 14.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Reputation (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Moderate	NIL	Major	NIL
Min	0.00	0.00	3.00	0.00	4.00	0.00
Expected	0.00	0.00	3.00	0.00	4.00	0.00
Max	0.00	0.00	3.00	0.00	4.00	0.00

Model Notes

Probability: Current Remote 20.00% Planned Residual NIL 0.00%

Title Subsidence on Network rail Land

Plan Owner Undefined

High Level Plan Description Involve Network Rail in Approval Procedure, Excavate area near to line overnight

Fallback Plan Description Stop works and stabilise ground

Title	Action Owner	Due
Arrange Network Rail Line Monitoring	J Buchanan	07-Dec-2007
Network Rail buy in to excavation plans close to NWR land	J Buchanan	07-Dec-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 899
Area of Risk: 7.4 Tramco
Event: Inability to determine and sign off aesthetic requirements for Tram
Owner: D Powell
Risk Area (OB): **Status:** Open

Description

Effect: Programme delay in finalising design; potential cost impacts

Cause: Stakeholder indecision/unclarified role

Risk Rating: 14.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	Major	NIL
Min	0.00		0.00	
Expected	250.00	0.00	13.00	0.00
Max	500.00		25.00	

Model Notes: If complete lack of direction/agreement from Stakeholders resulting in Cab/interior redesign beyond base estimate resulting in oncost of £100k/tram

Probability: Current Remote 20.00% Planned Residual NIL 0.00%

Title: Management of Stakeholder input to Tram aesthetic Design

Plan Owner: Undefined

High Level Plan Description: Issue Tramco Workstream Mgt Plan detaing role of Tram Design Review Group and submit TEL board Briefing Paper

Fallback Plan Description

Title	Action Owner	Due
Issue Tramco Workstream Mgt Plan	D Powell	16-Mar-2007
Submit TEL Board Briefing Paper describing role of Tram Design Group and provision of TSA in respect of Mock-up	D Powell	30-Apr-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 9
Area of Risk: 1.1 Land & Property
Event: Land reclassification changes value
Owner: A Sim
Risk Area (OB): External Influences > Other **Status:** Open

Description

Effect: Reclassification of land increases value/ cost of land.

Cause: Reclassification of land

Risk Rating: 14.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Major	NIL	NIL	NIL
Min	1000.00		0.00	
Expected		0.00		0.00
Max	1000.00		0.00	

Model Notes: Specifically change of landuse in Leith/Granton from industrial to residential/mixed and in airport area from industrial/agricultural to development.

Probability: Current Remote 10.00% Planned Residual NIL 0.00%

Title: Deliver land assembly package to programme

Plan Owner: Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Deliver land assembly package to programme	A Sim	31-Dec-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 892
Area of Risk: 2.9 TEL
Event: Maintenance costs of Tram Network are higher than TEL Business Case during Infraco maintenance period.
Owner: A Richards

Risk Area (OB) **Status:** Open

Description

Effect: TEL Business Case is undeliverable.

Cause: Infraco bids are too high.

Risk Rating: 14.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		OPEX Cost p.a. (£k)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	NIL	NIL	Major	Insignificant
Min	0.00	0.00	0.00	0.00	300.00	0.00
Max	0.00	0.00	0.00	0.00	500.00	25.00

Model Notes

Probability: Current Remote 20.00% Planned Residual Frequent 100.00%

Title: Reduce Opex Impacts of maintenance costs

Plan Owner: Undefined

High Level Plan Description: Refine the Infraco & TRamco Maintenance Specs and use commercial pressure to bring them down

Fallback Plan Description

Title	Action Owner	Due
Review underlying build up of costs to ensure correct comparisons are being made.	A Richards	28-Aug-2007
Refine and negotiate the tender stages through the remaining stages to reduce impact	A Richards	28-Aug-2007
Price reduction of maintenance costs to be part of final bid negotiations	G Gilbert	28-Aug-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 909

Area of Risk: 7.4 Tramco

Event RSPG and Case for Safety reqts not met

Owner D Powell

Risk Area (OB) **Status:** Open

Description

Effect: Delay and/or operating restrictions particularly on street

Cause Some bidders not familiar with UK reqts

Risk Rating: 14.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Major	NIL
Min	0.00		0.00	
Expected	0.00	0.00	10.00	0.00
Max	0.00		25.00	

Model Notes Potential Tramco/Infraco risk assessed as delay only

Probability: Current Remote 10.00% Planned Residual NIL 0.00%

Title RSPG & Safety Case Plan

Plan Owner Undefined

High Level Plan Description A series of Action to ensure Tramco fully meets RSOPG & Safety Case Reqts

Fallback Plan Description

Title	Action Owner	Due
Tramco to be fully briefed on RSPG and Safety Verification Process	D Powell	01-Jun-2007
Ensure Infraco/Tramco appoint Approvals/Safety Case manager	D Powell	31-Dec-2007
Organise regular reviews with ROGS Competent Person of drawings and mock-up	D Powell	01-Jul-2009

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 58

Area of Risk: 2.1 tie Resources

Event Infraco fails to deliver construction quality; latent defects occur during or after Infraco maintenance period

Owner S Clark

Risk Area (OB) Procurement > Poor Contractor Capabilities **Status:** Open

Description

Effect: Rework, stakeholder criticism, negative PR, programme delay if quality issue occurs during construction, operations affected by rework, project management costs to deal with issues

Cause Poor performance (quality) by Infraco during construction; poor materials; latent defects

Risk Rating: 14.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Reputation (N/A)		Revenue p.a. (£k)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	Minor	Insignificant	Major	Moderate	Moderate	Moderate	Insignificant	Insignificant
Min	25.00	0.00	4.00	2.00	3.00	3.00	0.00	0.00
Max	100.00	25.00	13.00	4.00	3.00	3.00	50.00	50.00

Model Notes Assume Infraco cannot recover cost of rework; assume bond type arrangement or guarantee covers for latent defects during maintenance period; assume PI type arrangement covers for costs after maintenance period; current and residual capex cost relates to additional project management costs during construction (not rework).

Probability: Current Remote 10.00% Planned Residual Improbable 3.00%

Title Transfer and Monitor of Quality Related Risk to Infraco Service Providers

Plan Owner Undefined

High Level Plan

Description

Fallback Plan

Description

Title	Action Owner	Due
Review Infraco quality processes as part of bids	T Condie	29-Jun-2007
Ensure contractual transfer of quality related risks to Infraco during contract negotiations	G Gilbert	28-Sep-2007
Ensure appropriate bonding and PI are in place	G Gilbert	28-Sep-2007
Develop quality audit and inspection plan for audits/inspection during construction	T Condie	30-Nov-2007
Undertake regular site inspection during construction	P Douglas	31-Dec-2010
Undertake quality audits during construction	T Condie	31-Dec-2010

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 889
Area of Risk: 2.9 TEL
Event: Target operating costs for Phase D are not agreed.
Owner: A Richards

Risk Area (OB) **Status:** Open

Description

Effect: TEL Business Case becomes undeliverable. Potential to undertake Dispute Resolution to gain agreement.

Cause: Unsuccessful negotiation. TEL believes costs inflated too much.

Risk Rating: 13.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		OPEX Cost p.a. (£k)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	Moderate	Minor	NIL	NIL	Major	NIL

Expected 300.00 62.50 0.00 0.00 375.00 0.00

Model Notes Opex is 5% of £10M p.a. = £500k p.a.

Probability: Current Improbable 1.00% Planned Residual NIL 0.00%

Title Update DPOFA Financial Model

Plan Owner Undefined

High Level Plan Description Evaluate the Base Case Assumptions and agree when scope is finalised for the system.

Fallback Plan Description

Title	Action Owner	Due
Discussions to update DPOFA financial model with Phase D scope changes	A Richards	28-Dec-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 901

Area of Risk: 7.4 Tramco

Event: Accident in Depot prior to Sytem opening

Owner: D Powell

Risk Area (OB): **Status:** Open

Description:

Effect: Depot activities suspended whilst HSE investigation and corrective actions take place

Cause: Safe Systems of Working and Responsibilities not established

Risk Rating: 13.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Major	NIL
Min	0.00		1.00	
Expected	0.00	0.00	5.00	0.00
Max	0.00		10.00	

Model Notes: All Capex risk with Infraco

Probability: Current Improbable 5.00% Planned Residual NIL 0.00%

Title: Establish Depot Safe Systems of work

Plan Owner: Undefined

High Level Plan Description: Ensure Tramco/Infraco/operator have established/implemented and trained staff in Appropriate Safe Systems of working before depot/trams are commissioned

Fallback Plan Description:

Title	Action Owner	Due
Properly define tram/depot interfaces and ensure correct commissioning and training	D Powell	01-Jan-2009
Infraco/Tramco/operator to establish , implement, and train staff in safe systems of work under the Case for Safety	D Powell	31-Jan-2009

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 902

Area of Risk: 7.4 Tramco

Event: Vandalism levels higher than expected

Owner: D Powell

Risk Area (OB): **Status:** Open

Description:

Effect: Cost to Infraco too high/unavailability of vehicles for testing and service

Cause: Lack of Security in depot/stabling, poorpre-service community relations/trainig/lack of graffit removal

Risk Rating: 13.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Major	NIL
Min	0.00		0.00	
Expected	0.00	0.00	5.00	0.00
Max	0.00		10.00	

Model Notes: Assumes all Capex risk with Infraco

Probability: Current Improbable 5.00% Planned Residual NIL 0.00%

Title: Vandalism mitigation

Plan Owner: Undefined

High Level Plan Description: Ensure Tram paint & detailing will be vandal resistant and easy to repair; TMA obligations are clear

Fallback Plan Description:

Title	Action Owner	Due
Ensure Tram paint & detailing will be vandal resistant and easy to repair; TMA obligations are clear	D Powell	19-Jul-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 908

Area of Risk: 7.4 Tramco

Event: Wheel /Rail interface incompatibility

Owner: D Powell

Risk Area (OB): **Status:** Open

Description

Effect: safety(shutdown;excess noise;long run times;increases maintenance costs; programm/service delays

Cause: Agrrement not reached or agreement not correct

Risk Rating: 13.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Major	NIL
Min	0.00		0.00	
Expected	0.00	0.00	10.00	0.00
Max	0.00		25.00	

Model Notes: Tramco/Inmfraco risk so only possible reduced revenue to TEL

Probability: Current Improbable 5.00% Planned Residual NIL 0.00%

Title: Wheel rail interface plan

Plan Owner: Undefined

High Level Plan Description: Ensure both Tramco & Infraco sign up to an interface before contract Award

Fallback Plan Description:

Title	Action Owner	Due
Ensure both Tramco & Infraco sign up to an interface before contract Award	D Powell	19-Jul-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd

Risk ID : 1012

Area of Risk: 7.3 Infraco

Event Occurrence of any referable delay/costs caused by suspension by ties Representative

Owner S Clark

Risk Area (OB) Status: Open

Description

Effect:

Cause

Risk Rating:

Significance:

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	<input type="text" value="Major"/>	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>

Expected 1000.00 0.00 0.00 0.00

Model Notes

Probability: Current 1.00% Planned Residual 0.00%

Title Effective Project Management

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Apply effective project management and minimize need for changes	S Clark	31-Jan-2011

Caveat: Undefined Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 1009

Area of Risk: 7.3 Infraco

Event Suspension on instructions of ties Representative in circumstances outwith the following: Suspension provided for in the Agreement, Suspension necessary by reason of default of the Infraco, Suspension necessary for the safety of the Infraco Works.

Owner S Clark

Risk Area (OB) **Status:** Open

Description

Effect: Delay to project

Cause

Risk Rating: 13.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Major	NIL	NIL	NIL

Expected 1000.00 0.00 0.00 0.00

Model Notes

Probability: Current Improbable 5.00% Planned Residual NIL 0.00%

Title Effective Planning

Plan Owner Undefined

**High Level Plan
Description**

**Fallback Plan
Description**

Title	Action Owner	Due
Good planning by tie and CEC should avoid need to apply this suspension.	S Clark	31-Jan-2011

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 972
Area of Risk: 7.1.3 Depot
Event: Damage to Network rail Infrastructure by contractor
Owner: J Buchanan

Risk Area (OB) **Status:** Open

Description

Effect: Increased costs, bad publicity

Cause: Unauthorised Vehicle movements outwith the site boundary

Risk Rating: 13.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Reputation (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Moderate	NIL	Major	NIL
Expected	0.00	0.00	3.00	0.00	4.00	0.00

Model Notes

Probability: Current Improbable 2.50% Planned Residual NIL 0.00%

Title: Damage to Network rail Infrastructure

Plan Owner: Undefined

High Level Plan Description: Install Armco Barrier along NWR Boundary

Fallback Plan Description: Install temporary protection & staff presence

Title	Action Owner	Due
Arrange Funding & approval to Install Barrier	J Buchanan	20-Jul-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 932
Area of Risk: 1.3.1 NR Immunisation Project
Event SDS gives wrong or insufficient information to Network Rail
Owner T Glazebrook

Risk Area (OB) **Status:** Open

Description

Effect: Network Rail design their works inappropriately for final Tram requirements; Network Rail are unable to complete their design in time to meet programme; Cost to change design; Delay during redesign; Final works are not suitable and consequently Tram cannot be commissioned to programme.

Cause Information handed over in draft format as part of continual design development; Downstream Tram design change that impacts on requirements; Zone of interference not defined adequately.

Risk Rating: 13.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Reputation (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	Major	NIL	Minor	NIL
Min	100.00		4.00		2.00	
Expected		0.00		0.00		0.00
Max	500.00		13.00		2.00	

Model Notes

Probability: Current Improbable 5.00% Planned Residual NIL 0.00%

Title Design, approval and information transfer process

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Ensure SDS design check and approvals process is in place and implemented	T Glazebrook	30-Mar-2007
Ensure programme is established with suitable milestones and float/contingency	Immunisation Works PM	29-Jun-2007
Review design liabilities	S Bell	30-Jun-2007
Ensure Tram Design Development proceeds to required programme	T Glazebrook	31-Dec-2007
If necessary, Network Rail to develop works using conservative assumptions	Immunisation Works PM	31-Dec-2007
tie/TSS to undertake assurance review as necessary	Immunisation Works PM	30-Oct-2009
Undertake regular liaison during Immunisation Works design development (attend progress meetings with NR contractor)	T Glazebrook	30-Oct-2009

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 896
Area of Risk: 7.1.3 Depot
Event Damage to HV, LV Power & Comms cables by excavation works, hitting unidentified cables
Owner J Buchanan

Risk Area (OB) **Status:** Open

Description

Effect: Loss of Supply to both private & business Users, delay to programme, impact on reputation

Cause Diversion of HV and LV power supplies at Gogar Depot

Risk Rating: 13.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Reputation (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Insignificant	NIL	Major	NIL
Min		0.00		0.00		0.00
Expected	0.00		1.00		4.00	
Max		0.00		0.00		0.00

Model Notes

Probability: Current Improbable 2.50% Planned Residual NIL 0.00%

Title Diversion of HV & LV Cables at Gogar Depot
Plan Owner Undefined
High Level Plan Description Divert HV & LV Power cables to outside the Depot boundary using a competent contractor with authorisation. Refer to all buried service drawings & charts. Ensure correct method statement & permits are in place.
Fallback Plan Description Contractor to have cable jointing on site& repair kits . Contractor to ensure that an incident management plane is in place including the relevant emergency contact numbers

Title	Action Owner	Due
Use of a competent authorised contractor	J Buchanan	06-Sep-2007
Contractor to check buried service drawings & charts	J Buchanan	06-Sep-2007
Contractor to have cable jointing on site& repair kits	J Buchanan	06-Sep-2007
Contractor to ensure that an incident management plan is in place including the relevant emergency contact numbers	J Buchanan	06-Sep-2007
Ensure correct method statement & permits are in place.	J Buchanan	06-Sep-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 897
Area of Risk: 7.1.3 Depot
Event: Contractors excavation equipment causing damage to water mains
Owner: J Buchanan
Risk Area (OB): **Status:** Open

Description

Effect: Loss of water supply in the Edinburgh area, site flooding, damaged reputation
Cause: Mass excavation in vicinity/close proximity to water mains

Risk Rating: 13.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Reputation (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Minor	NIL	Major	NIL
Min	0.00	0.00	1.00	0.00	4.00	0.00
Max	0.00	0.00	2.00	0.00	4.00	0.00

Model Notes

Probability: Current Improbable 2.50% Planned Residual NIL 0.00%

Title: Mass Excavation Causing water Main fracture mitigation
Plan Owner: Undefined
High Level Plan Description: Contractor to check all buried service drawings, inform Scottish Water of Methods pf work and agree
Fallback Plan Description: Arrange Scottish water stand by during works in the pipework area,

Title	Action Owner	Due
Install 40m exclusion zone around water main	J Buchanan	29-Jun-2007
Contractor to check all buried service drawings, inform Scottish Water of Methods pf work and agree	J Buchanan	06-Sep-2007
Arrange Scottish water stand by during works in the pipework area,	J Buchanan	06-Sep-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 281
Area of Risk: 2 PROCUREMENT CONSULTANT
Event: Insufficient planning of procurements
Owner: G Gilbert
Risk Area (OB): Procurement > Other **Status:** Open

Description

Effect: Weak procurement plan; damage to reputation; optimum risk transfer to contractors not achieved; proposals do not meet requirements

Cause: Poor planning

Risk Rating: 13.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Reputation (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	NIL	NIL	Major	NIL
Expected	0.00	0.00	0.00	0.00	4.00	0.00

Model Notes

Probability: Current Improbable 5.00% Planned Residual NIL 0.00%

Title: Plan procurement and project controls

Plan Owner: Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Improve robustness of procurement plan	G Gilbert	29-Dec-2006
Finalise project estimate and functional specification and apply change control	G Gilbert	29-Dec-2006
Undertake further Value Engineering to reduce costs and create budget headroom	G Gilbert	29-Jun-2007
Prepare and implement plan for delivery of Infracore and Tramco tender and negotiation process	G Gilbert	28-Sep-2007
Apply vigorous change control and cost checking of emerging detailed designs	G Gilbert	31-Dec-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 68
Area of Risk: 7.3 Infraco
Event Supply of commissioning services from Transdev to Infraco.
Owner A Richards
Risk Area (OB) Procurement > Complexity of Contract Structure **Status:** Open
Description
Effect: Delay and costs incurred by Infraco.
Cause Interface with Transdev

Risk Rating: 13.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Major	NIL	NIL	NIL
Min	0.00		0.00	
Expected	1000.00	0.00	0.00	0.00
Max	3000.00		0.00	

Model Notes Assume 3 month delay during commissioning @ £1m per month

Probability: Current Improbable 1.00% Planned Residual NIL 0.00%

Title Alignment of Infraco and DPOFA agreements and resource definitions so that they are back to back
Plan Owner Undefined
High Level Plan Description Alignment of Infraco and DPOFA agreements
Fallback Plan Description

Title	Action Owner	Due
Negotiation and detailing of the resource schedules in the Infraco Agreement	A Richards	30-Sep-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 22
Area of Risk: 7.3 Infraco
Event: Hazardous materials encountered during construction
Owner: T Glazebrook
Risk Area (OB): Environment > Site Characteristics **Status:** Open

Description

Effect: Additional treatment costs and protective measures
Cause: Base estimate does not account for presence of hazardous materials on land

Risk Rating: 12.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL
Min	100.00		0.00	
Expected	400.00	0.00	0.00	0.00
Max	2000.00		0.00	

Model Notes

Site investigation will reveal contamination in time to inform land valuation process. At that point, costs of additional treatment and preventative measures will be ascertained, land prices negotiated accordingly and the risk reduced to reflect the possibility of finding unforeseen contamination during construction (see SC88). At present this risk covers the potential for complex remediation over and above that which has been estimated and can be off-set by a reduction in land price. Particularly covers Scotrail Depot and Gogar Depot Paintworks (both RED sites).

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

- Title**
- Plan Owner**
- High Level Plan Description**
- Fallback Plan Description**

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 102

Area of Risk: 3 DESIGN

Event Detail design leads to kinematic envelope impact on vertical and horizontal alignment

Owner D Powell

Risk Area (OB) Project Specific > Design Complexity **Status:** Open

Description

Effect: Realignment of track to accommodate an increased 3 dimensional safe zone around the preferred route

Cause Change in Design Kinematic Envelope requirements

Risk Rating: 12.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL
Min	0.00		0.00	
Expected	500.00	0.00	0.00	0.00
Max	3250.00		0.00	

Model Notes Initial assessment - Maximum impact based on 20% structures costs.

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title Tram KE defintion

Plan Owner Undefined

High Level Plan Description Freeze KE prior to Tramco Award: Ensure Tramco final 2 bidders supply full and definitive KE info and tram dimensions to tie/SDS and sign upto it on the Interface schedule. Residual risk is then transferred to Infraco

Fallback Plan Description Transfer interface risk to Infraco

Title	Action Owner	Due
TRAM KE defintion	D Powell	19-Jul-2007
Tram KE defintion	D Powell	19-Jul-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 985

Area of Risk: 5 PALIAMENTARY PROCESS/ APPROVALS

Event Members support objections to traffic management proposals

Owner D Fraser

Risk Area (OB) **Status:** Open

Description

Effect: Requirement to modify traffic management and possibly TRO

Cause Unacceptable change to traffic impact

Risk Rating:

Significance:

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>	<input type="text" value="Moderate"/>	<input type="text" value="NIL"/>
Min	0.00		0.00	
Expected	0.00	0.00	3.00	0.00
Max	0.00		6.00	

Model Notes

Probability: Current 50.00% Planned Residual 0.00%

Title Reduce through design

Plan Owner Undefined

**High Level Plan
Description**

**Fallback Plan
Description**

Title	Action Owner	Due
Robust and informed design e.g. frontager access	T Glazebrook	30-Apr-2008
Increase member engagement	D Fraser	30-Apr-2008

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 10

Area of Risk: 1.1 Land & Property

Event Cost associated with obtaining wayleaves

Owner A Sim

Risk Area (OB) Client Specific > Poor Project Intelligence **Status:** Open

Description

Effect: Increased legal costs relating to obtaining wayleaves

Cause Costs of obtaining access rights are unknown

Risk Rating: 12.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL
Min	50.00		0.00	
Expected	200.00	0.00	0.00	0.00
Max	500.00		0.00	

Model Notes Construction assumptions to include realistic assessment of access requirements and associated costs. Main impact is at depot. At present. Land budget is assumed to cover this.

Probability: Current Possible 40.00% Planned Residual NIL 0.00%

Title Identify wayleave requirements

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Identify wayleave requirements based on emerging design	G Murray	30-Apr-2009

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 351
Area of Risk: 7.4 Tramco
Event: Trams are manufactured but Depot unavailable to take delivery
Owner: D Powell
Risk Area (OB): Project Specific > Other **Status:** Open

Description

Effect: Trams need to be stored resulting in storage costs
Cause: Depot not completed on time

Risk Rating: 12.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL
Min	100.00		0.00	
Expected	300.00	0.00	0.00	0.00
Max	600.00		0.00	

Model Notes

Current programme indicates that 1st trams being delivered Sep 09 with depot completion Feb 10. Possibility of using sidings to stored which would require only 2 months storage @ £100k. Most likely is that Trams require 5 months storage @ £100k. Max is 5 months storage @ £150k. Idea to reduce Depot construction time is essential to prevent this risk from materialising.

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title: Depot Readiness
Plan Owner: Undefined
High Level Plan Description: Transfer risk & costs of storage to Infraco
Fallback Plan Description: Keep trams at Tramco factory at low cost

Title	Action Owner	Due
Ensure Infraco carries risk of late depot completion	D Powell	15-Jun-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 288

Area of Risk: 2.9 TEL

Event Runtime planning underpinning the forecasts prove operationally undeliverable

Owner A Sim

Risk Area (OB) Client Specific > Inadequacy of Business Case **Status:** Open

Description

Effect: Validity of forecasts damaged - potential for net revenue performance of the network to prove inadequate and unsustainable

Cause Competing or lack of effective bus and tram services on key corridors

Risk Rating: 12.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		OPEX Cost p.a. (£k)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	NIL	NIL	Moderate	Insignificant
Min	0.00	0.00	0.00	0.00	100.00	0.00
Max	0.00	0.00	0.00	0.00	250.00	25.00

Model Notes No cost impact noted by JRC.

Probability: Current Possible 50.00% Planned Residual Improbable 5.00%

Title Develop seamless tram/bus service integration plans

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Development of appropriate service integration plans in association with TEL	A Sim	31-Mar-2008

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 984
Area of Risk: 4.1 JRC
Event: Traffic modelling programme overruns
Owner: A Sim
Risk Area (OB): **Status:** Open

Description

Effect: Delay to delivery of Final Business Case

Cause: Delay in securing final signed-off design and extent of wider area impacts

Risk Rating: 12.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Moderate	NIL

Expected 0.00 0.00 4.00 0.00

Model Notes

The successful conclusion of traffic modelling programme has implications on both the delivery of TROs and the Final Business Case. During this process the key stakeholders (CEC and TEL) will need to sign-off final design for the Tram system and for identified consequential measures. Failure to do so on programme could result in delay to commencement of the Infraco contract.

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title: Active management of JRC programme

Plan Owner: Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
JRC PM to manage delivery	A Sim	28-Sep-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 303
Area of Risk: 7.3 Infraco
Event: Third party works in Edinburgh impact on Tram infrastructure construction
Owner: S Clark

Risk Area (OB) **Status:** Open

Description

Effect: CEC may limit the number of workfronts allowed; programme re-sequencing; slower overall construction rate; effective increase in preliminaries; overall programme delay

Cause: Proximity in time and space to other works within Edinburgh

Risk Rating: 12.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	Minor	NIL

Min	100.00		0.00	
Expected		0.00		0.00
Max	500.00		4.00	

Model Notes

Probability: Current Possible 40.00% Planned Residual NIL 0.00%

Title: Identification of 3rd part works - database of all approved planning applications within 1km of Tram infrastructure to a

Plan Owner: Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Identification of 3rd part works - database of all approved planning applications within 1km of Tram infrastructure to aid planning.	A Sim	30-Jul-2007
Regular meetings between bidders and CEC to agree construction methodology.	S Clark	31-Oct-2007
Programme to be continually monitored against 3rd party database to identify and manage conflicts	T Hickman	30-Jan-2011

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 318
Area of Risk: 7.3 Infraco
Event: Utility connections cannot proceed as planned
Owner: B Dawson
Risk Area (OB): Procurement > Information Management **Status:** Open

Description

Effect: Potential delay to start of Infraco works in certain sections

Cause: Failure to make arrangements with Utilities for the phasing of necessary connections; Utility Company operational constraints

Risk Rating: 12.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL
Min	100.00		0.00	
Expected		0.00		0.00
Max	500.00		0.00	

Model Notes

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title: Agree Construction Programme with SUCs

Plan Owner: Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Construction programme to be agreed with SUCs	G Barclay	30-Apr-2007
Confirm/obtain design to allow SUs to programme their works	D Crawley	31-Jul-2007
Re-programme Infraco to start on sections completed	J McAloon	31-Jul-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 1003

Area of Risk: 7.3 Infraco

Event Failure to liaise with any party, as reasonably required, to produce information required so that the Infraco Works can be progressed properly, according to Programme and in accordance with the Infraco Contract
Owner S Clark

Risk Area (OB) **Status:** Open

Description

Effect: Delay to project and additional costs

Cause

Risk Rating: 11.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL

Expected 500.00 0.00 0.00 0.00

Model Notes

Probability: Current Remote 10.00% Planned Residual NIL 0.00%

Title Design and Build Contract

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Provision of design becomes an Infraco risk post contract under the design and build arrangement. Onus will be on Infraco to liaise with third parties.	S Clark	31-Jan-2011
Contractor to provide an interface management tracker to minimise risk of lack of third party consultation impinging on work	S Clark	31-Jan-2011
tie project management to monitor Infracos management of interface with other parties	S Clark	31-Jan-2011

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 60
Area of Risk: 2.9 TEL
Event: Poor handback condition
Owner: A Richards
Risk Area (OB): Procurement > Poor Contractor Capabilities **Status:** Open

Description

Effect: Stakeholder criticism, effect on operations leading to trams not running. Increase in costs to cover backlog maintenance.

Cause: Required handback condition requirement is not achieved.

Risk Rating: 11.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		OPEX Cost p.a. (£k)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	NIL	NIL	Moderate	Minor
Min	0.00	0.00	0.00	0.00	0.00	0.00
Expected	0.00		0.00		200.00	
Max	0.00	0.00	0.00	0.00	750.00	100.00

Model Notes: Annual maintenance costs £1.5m. Worst case is tram out of service for 1 mth in yr 6 and maintenance backlog costs 50% of annual maintenance cost. Most likely is minor backlog maintenance 25% of annual maintenance cost. Min is 0 due to contractual measures. Impact area is OPEX.

Probability: Current Remote 30.00% Planned Residual Remote 20.00%

Title: Inspection Audit Strategy
Plan Owner: Undefined
High Level Plan Description: Implement inspection scheme
Fallback Plan Description: Audit schedule

Title	Action Owner	Due
Appoint site inspectors	P Douglas	30-Mar-2007
Agree stop work procedures	P Douglas	27-Apr-2007
Set KPIs for Infraco	S Clark	31-May-2007
Ensure clarity in contractors agreement to make good defects for 1 year post reinstatement	A Richards	30-Sep-2007
Pre- and Post Construction Condition Surveys	A Richards	30-Dec-2008
Undertake quality audits	T Condie	30-Dec-2011

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 895
Area of Risk: 2.9 TEL
Event SESTRAN do not fund Ingliston Park & Ride
Owner A Richards

Risk Area (OB) **Status:** Open

Description

Effect: TEL Business Plan becomes undeliverable; Patronage is reduced hence Tram revenue is lost

Cause SESTRAN overspend in other areas; Other Local Authorities on SESTRAN Board do not prioritise Ingliston Park & Ride with political will evaporating; Tenders are unaffordable or significantly greater than current budget

Risk Rating: 11.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Revenue p.a. (£k)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	NIL	NIL	Moderate	NIL

Min	0.00		0.00		100.00	
Expected		0.00		0.00		0.00
Max	0.00		0.00		210.00	

Model Notes Potential to lose 400 return tickets perday @ £1 each way - total revenue loss per year for Tram is £208k

Probability: Current Remote 25.00% Planned Residual NIL 0.00%

Title Raise awareness of the importance and the funding shortfall

Plan Owner Undefined

High Level Plan Description Raise profile of the importance of the Park & Ride, revisit Sestran and CEC for further funding in 3rd quarter 2008 after the temporary site has been opened.

Fallback Plan Description

Title	Action Owner	Due
Refocus the Park & Ride development in the No-EARL world	A Richards	01-Jan-2008
Raise awareness of the shortfall of funding and the importance of growing the park & ride site	A Richards	01-Aug-2008
Reapply for Sestran and CEC funding 3rd quarter of 2008	A Richards	27-Oct-2008

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 294

Area of Risk: 4.3 Business Case

Event Final Design impacts negatively on Final Business Case

Owner A Sim

Risk Area (OB) Client Specific > Inadequacy of Business Case **Status:** Open

Description

Effect: Could be negative implications on Tram final business case. Potential to negatively impact BCR

Cause Traffic model identifies areas where design is not compatible with efficient transport network operations.

Risk Rating: 11.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Environmental (N/A)		Revenue p.a. (£k)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	Moderate	NIL	Minor	NIL	Moderate	NIL
Min	100.00		2.00		2.00		100.00	
Expected		0.00		0.00		0.00		0.00
Max	500.00		4.00		2.00		250.00	

Model Notes JRC note no cost impact relating directly to this risk. Knock on effect will be included in other risks relating to business case.

Probability: Current Remote 20.00% Planned Residual NIL 0.00%

Title Transport Model & Design Interface

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Report on PD2 design from traffic model outputs	A Sim	31-Aug-2007
Feedback between JRC and SDS on PD2 Design	A Sim	31-Aug-2007
Develop most efficient design to meet objectives of FBC	A Sim	31-Dec-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 155
Area of Risk: 7.4 Tramco
Event: Business case runtime and CEC requirements (change in equipment and quality specification)
Owner: D Powell
Risk Area (OB): Client Specific > Inadequacy of Business Case **Status:** Open

Description

Effect: Increased cost of tramsets

Cause: Increase in specification over and above assumptions in base estimate regarding equipment and quality specification for tram vehicles

Risk Rating: 11.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL
Min	160.00		0.00	
Expected	270.00	0.00	0.00	0.00
Max	600.00		0.00	

Model Notes Max impact = £150k per tramset. 4 trams on Line 1B = £600k. ML = 13 tramsets @ £90k = £270k. Min = 13 tramsets @ £40k = £160k.

Probability: Current Remote 20.00% Planned Residual NIL 0.00%

Title: Confirm TEL Business Case reqts

Plan Owner: Undefined

High Level Plan Description: Confirm Business Case reqts and ensure Tramco ITN document reflect these fully

Fallback Plan Description:

Title	Action Owner	Due
Confirm Business Case reqts and ensure Tramco ITN document reflect these fully	D Powell	02-Apr-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 900
Area of Risk: 7.4 Tramco
Event: Depot design is not compatible with tram
Owner: D Powell

Risk Area (OB) **Status:** Open

Description

Effect: Programme delay whilst Infraco modify Depot; Performance risk on Tramco TMA

Cause: SDS & Infraco procurement not familiar with chosen tram reqts

Risk Rating: 11.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL
Min	10.00		0.00	
Expected	250.00	0.00	0.00	0.00
Max	500.00		0.00	

Model Notes: Assume impact is on depot equipment only not building or Yard layout/structure

Probability: Current Remote 15.00% Planned Residual NIL 0.00%

Title: Tram/Depot interface plan
Plan Owner: Undefined
High Level Plan Description: See Risk 103/104/319
Fallback Plan Description: Transfer residual risk to Infraco at novation

Title	Action Owner	Due
See Risk 103/104/319	D Powell	19-Jul-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd

Risk ID : 1007

Area of Risk: 7.3 Infraco

Event Introduction of alternative Submittal Programme where tie cannot comply with the original programme (not arising from Infraco default)

Owner S Clark

Risk Area (OB)

Status: Open

Description

Effect: Delay

Cause

Risk Rating: 11.0

Significance: Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL

Expected 500.00 0.00 0.00 0.00

Model Notes

Probability: Current 10.00% Remote 10.00% Planned Residual 0.00% NIL 0.00%

Title early warning

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
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tie would have early warning of inability to comply and could resource accordingly. Alternative Submittal Programme is not compulsory therefore tie do not have to respond.	S Clark	31-Jan-2011
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Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 357

Area of Risk: 1.1 Land & Property

Event Submission of CAAD Claim for Plot 322

Owner A Sim

Risk Area (OB) Procurement > Dispute & Claims **Status:** Open

Description

Effect: Increase in land value for plot

Cause Landowner disagrees with District Valuer s Assessment of land value and submits a Certificate of Appropriate Alternative Development - Plot 322

Risk Rating:	11.0	Significance:	Medium
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Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL

Expected	375.00	0.00	0.00	0.00
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Model Notes

Probability:	Current	Remote	10.00%	Planned Residual	NIL	0.00%
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Title District Valuer

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
District Valuer to negotiate with landowner	A Sim	31-Dec-2010

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 358

Area of Risk: 1.1 Land & Property

Event Submission of CAAD Claim for plot 327

Owner A Sim

Risk Area (OB) Procurement > Dispute & Claims **Status:** Open

Description

Effect: Increase in land value for plot

Cause Landowner disagrees with District Valuer s Assessment of land value and submits a Certificate of Appropriate Alternative Development - Plot 327

Risk Rating: 11.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL

Expected 375.00 0.00 0.00 0.00

Model Notes

Probability: Current Remote 10.00% Planned Residual NIL 0.00%

Title District Valuer

Plan Owner Undefined

**High Level Plan
Description**

**Fallback Plan
Description**

Title	Action Owner	Due
District Valuer to negotiate with landowner	A Sim	31-Dec-2010

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 71
Area of Risk: 7.4 Tramco
Event: Unclear scope of desired performance levels.
Owner: D Powell
Risk Area (OB): Client Specific > Inadequacy of Business Case **Status:** Open
Description:
Effect: Increased capex investment is necessary.
Cause: Inadequate definition of availability, reliability and maintainability requirements

Risk Rating: 11.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL
Min	0.00		0.00	
Expected	250.00	0.00	0.00	0.00
Max	500.00		0.00	

Model Notes

Probability: Current Remote 30.00% Planned Residual NIL 0.00%

Title: Define Tram fleet RAM requirements
Plan Owner: Undefined
High Level Plan Description: Ensure sign off within TEL of Ram reqts and ensure that the final tram bidders comply with this reqt
Fallback Plan Description:

Title	Action Owner	Due
Freeze Tie RAM reqts in TSA/TMA	D Powell	19-Jul-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 97
Area of Risk: 7.4 Tramco
Event: Delay in supply of vehicles - 1A
Owner: D Powell
Risk Area (OB): External Influences > Other **Status:** Open

Description

Effect: Time delay to operations, costs relating procurement of replacement manufacturer

Cause: Problems with tram supplier (industrial relations, financial problems etc)

Risk Rating: 11.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL
Min	0.00		0.00	
Expected	260.00	0.00	0.00	0.00
Max	450.00		0.00	

Model Notes Total risk for whole network is Max £0.83m, ML £0.5m, Min £0. Split between Lines 1A and 1B by the number of trams. Line 1A has 14 out of 27 Trams. Time delay is difficult to quantify.

Probability: Current Remote 15.00% Planned Residual NIL 0.00%

Title Mitigation of impact of late Tram delivery

Plan Owner Undefined

High Level Plan Description Transfer risk to Infraco via novation

Fallback Plan Description

Title	Action Owner	Due
Transfer risk to Infraco via novation	D Powell	19-Jul-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 98
Area of Risk: 7.4 Tramco
Event: Delay in supply of vehicles - 1B
Owner: D Powell
Risk Area (OB): External Influences > Other **Status:** Open

Description

Effect: Time delay to operations, costs relating procurement of replacement manufacturer
Cause: Problems with tram supplier (industrial relations, financial problems etc)

Risk Rating: 11.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL
Min	0.00		0.00	
Expected	240.00	0.00	0.00	0.00
Max	400.00		0.00	

Model Notes Total risk for whole network is Max £0.83m, ML £0.5m, Min £0. Split between Lines 1A and 1B by the number of trams. Line 1B has 13 out of 27 Trams. Time delay is difficult to quantify.

Probability: Current Remote 25.00% Planned Residual NIL 0.00%

Title: Mitigation of late tram delivery
Plan Owner: Undefined
High Level Plan Description: Transfer risk of late delivery to Infraco at Novation
Fallback Plan Description:

Title	Action Owner	Due
Transfer risk of late delivery to Infraco at Novation	D Powell	19-Jul-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd

Risk ID : 883

Area of Risk: 7.1.2 Badger Relocation

Event Gogarburn Badger/Otter Proposals for closure of old setts not approved by SNH/SEERAD

Owner D Burns

Risk Area (OB) **Status:** Open

Description

Effect: Delay in accessing land to construct Tram works and hence in Programme

Cause Ineffective/Inappropriate Proposals; new setts must be built before old ones can be closed and licenses will not be issued until nearer time of closure; animals must have settled in new home before closure of old one can take place

Risk Rating: 11.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Reputation (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	Insignificant	NIL	Moderate	NIL	Minor	NIL
Min	0.00		2.00		2.00	
Expected		0.00		0.00	0.00	
Max	25.00		4.00		2.00	

Model Notes

Probability: Current Remote 17.50% Planned Residual NIL 0.00%

Title Early Dialogue to ensure proposals in Line SNH/SEERAD

Plan Owner Undefined

High Level Plan Description Regular Communication to ensure no surprises

Fallback Plan Description

Title	Action Owner	Due
Correspondence and liaison with relevant bodies to ensure works designed to meet approval requirements	D Burns	31-Aug-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 894

Area of Risk: 7.1.2 Badger Relocation

Event Roseburn Badger Proposals for closure of old setts not approved by SNH

Owner D Burns

Risk Area (OB) **Status:** Open

Description

Effect: Delay in accessing land to construct Tram works and hence in Programme

Cause Ineffective/Inappropriate Proposals; new setts must be built before old ones can be closed and licenses will not be issued until nearer time of closure; animals must have settled in new home before closure of old one can take place

Risk Rating: 11.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Reputation (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	Insignificant	NIL	Moderate	NIL	Minor	NIL
Min	0.00		2.00		2.00	
Expected		0.00		0.00		0.00
Max	25.00		4.00		2.00	

Model Notes

Probability: Current Remote 17.50% Planned Residual NIL 0.00%

Title Early Dialogue to ensure proposals in Line SNH

Plan Owner Undefined

High Level Plan Description Regular Communication to ensure no surprises

Fallback Plan Description

Title	Action Owner	Due
Correspondence and liaison with relevant bodies to ensure works designed to meet approval requirements	Undefined	29-Aug-2008

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 875

Area of Risk: 7.1.3 Depot

Event Turnhouse PRS not constructed on time. Tram has limited control over SGN activities.

Owner J Buchanan

Risk Area (OB) **Status:** Open

Description

Effect: Critical delay to programme works including removal of spoil, Infraco removal of SGN pipeline

Cause Scottish Gas Networks failure to complete PRS works

Risk Rating: 11.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Moderate	NIL
Min	0.00		3.00	
Expected	0.00	0.00	3.00	0.00
Max	0.00		3.00	

Model Notes

Probability: Current Remote 25.00% Planned Residual NIL 0.00%

Title SGN HP Gas Main works

Plan Owner Undefined

High Level Plan Description Project Management of HP gas main so that SGN Complete their works to programme

Fallback Plan Description MUDFA continue their works around an agreed gas main exclusion zone.

Title	Action Owner	Due
Obtain updated HP gas main location drawings from SGN	J Buchanan	23-Feb-2007
Early payment to SGN	Undefined	28-Feb-2007
SDS to produce excavation drawings and design showing 6m exclusion zone on each side of HP gas main	J Buchanan	09-Mar-2007
Contractor to excavate around HP gas main leaving 6m exclusion zone	J Buchanan	02-Nov-2007
Removal of SGN pipe - yet to be decided if by advanced works or Infraco	S Clark	28-Mar-2008
Monthly review of cost and programme	J Buchanan	31-Mar-2008

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 879

Area of Risk: 7.1.1 Invasive Species

Event Access to land to eradicate invasive species is not available when required

Owner D Burns

Risk Area (OB) **Status:** Open

Description

Effect: Programme Delay; contractor refuses to take ownership of risk 869 or includes high contingency in tender to allow for.

Cause Contractor is unable to get access to worksite due to access route being outside LOD and owned by others

Risk Rating: 11.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Reputation (N/A)		Environmental (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	Insignificant	NIL	Moderate	Minor	Minor	Minor	Minor	Minor
Min	0.00	0.00	2.00	1.00	2.00	2.00	2.00	2.00
Max	40.00	0.00	4.00	2.00	2.00	2.00	2.00	2.00

Model Notes

Probability: Current Remote 10.00% Planned Residual Remote 10.00%

Title Ensure EarlyNotice / Negotiate with all Landowners

Plan Owner Undefined

High Level Plan Description Initially Target Programme of Works to Areas with Agreement in Place

Fallback Plan Description

Title	Action Owner	Due
Target Key Owners (CEC/NR/BAA)	Undefined	03-Apr-2007
Negotiate with Landowners - for tie at early stages	D Burns	15-Jun-2007
Transfer access task to contractor	D Burns	13-Sep-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 974

Area of Risk: 7.1.3 Depot

Event: Increase in levels of Spoil Excavation

Owner: J Buchanan

Risk Area (OB): **Status:** Open

Description:

Effect: Increased Cost & Programme extension

Cause: Innacurate Topo Survey results

Risk Rating: 11.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	Minor	NIL
Min	100.00		1.00	
Expected	300.00	0.00	2.00	0.00
Max	500.00		3.00	

Model Notes: 305000 cubic metres allowed for in base estimate. Could be up to 330000 cubic metres.

Probability: Current Remote 25.00% Planned Residual NIL 0.00%

Title: Increase in levels of Spoil Excavation

Plan Owner: Undefined

High Level Plan Description: Carry out Independant Topo Survey / Confirm SDS Survey results

Fallback Plan Description: Re-measure of excavation requirements

Title	Action Owner	Due
Confirm SDS Topo Results	J Buchanan	14-May-2007
Carry out new Topo Survey after Phase One completion confirm figures	J Buchanan	24-Aug-2007
Monitor excavation figures & levels	J Buchanan	27-Aug-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 100
Area of Risk: 7.3 Infraco
Event: Increase in fencing, walls, screen requirements
Owner: A Sim
Risk Area (OB): Client Specific > Poor Project Intelligence **Status:** Open

Description

Effect: Additional construction costs

Cause: 3rd party agreements impact on works not accounted for in estimate/ become apparent during construction

Risk Rating: 11.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL
Min	60.00		0.00	
Expected	120.00	0.00	0.00	0.00
Max	240.00		0.00	

Model Notes

Probability: Current Remote 30.00% Planned Residual NIL 0.00%

Title: Additional mitigation measures

Plan Owner: Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Identify additional mitigation measures through emerging design	G Murray	30-Mar-2008

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 103
Area of Risk: 7.3 Infraco
Event: Delay in detailing of stops, trackway, OLE etc for Phase 1A
Owner: D Powell
Risk Area (OB): Procurement > Information Management **Status:** Open

Description

Effect: Time delay and consequent costs
Cause: Delay in design information release from specialist tram manufacturer

Risk Rating: 11.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL
Min	0.00		0.00	
Expected	225.00	0.00	0.00	0.00
Max	750.00		0.00	

Model Notes Total risk for whole network is Max £0.83m, ML £0.25m and Min £0. Split proportionally between Lines 1A and 1B by base estimate costs with 90% apply to 1A and 10% to 1B.

Probability: Current Remote 15.00% Planned Residual NIL 0.00%

Title: Freeze tram detail interface info
Plan Owner: Undefined
High Level Plan Description: Ensure Tram preferred bidders fully submit all required interface info to to tie/SDS and sign off to it at TSA award
Fallback Plan Description: Transfer risk to Infraco

Title	Action Owner	Due
Ensure Tram preferred bidders fully submit all required interface info to to tie/SDS and sign off to it at TSA award	D Powell	19-Jul-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 67
Area of Risk: 7.3 Infraco
Event: Roads maintenance is not carried out
Owner: TS/CEC
Risk Area (OB): Client Specific > Other **Status:** Open
Description:
Effect: CEC is in breach of its statutory duties
Cause: Interface with CEC as roads authority
Risk Rating: **Significance:**

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL
Min	100.00		0.00	
Expected	250.00	0.00	0.00	0.00
Max	500.00		0.00	

Model Notes Assume Infraco incurs some marginal costs not clearly defined in road demarcation agreement. Assume £100k pa for 5 years.

Probability: Current 20.00% Planned Residual 0.00%

Title
Plan Owner
High Level Plan Description
Fallback Plan Description

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 11
Area of Risk: 7.3 Infraco
Event: Land required for access to workfront not acquired
Owner: S Clark
Risk Area (OB): Client Specific > Project Management Team **Status:** Open
Description:
Effect: Additional management and acquisition costs relating to acquiring land to gain access
Cause: Contractors methodology not adequately assessed

Risk Rating: 11.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL
Min	300.00		0.00	
Expected		0.00		0.00
Max	300.00		0.00	

Model Notes Includes LP63 Land Condition - if there are areas of uncertainty requiring access strips of land required for construction then additional unplanned permissions may be necessary. This risk mainly applies to Roseburn corridor.

Probability: Current Remote 20.00% Planned Residual NIL 0.00%

Title: Process and protocol agreements
Plan Owner: Undefined
High Level Plan Description:
Fallback Plan Description:

Title	Action Owner	Due
CPO process to be complete and all land available	A Sim	31-Aug-2007
License protocol to be agreed between tie and CEC	A Sim	31-Aug-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 981

Area of Risk: 7.1.3 Depot

Event Increase in the Lothian Valuation Joint Board rateable value of the spoil site

Owner J Buchanan

Risk Area (OB) **Status:** Open

Description

Effect: New Landfill site will have to be found and agreements reached. Possibility of increased costs

Cause Existing Spoil Site Unable to accept future spoil

Risk Rating: 10.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Insignificant	NIL	Minor	NIL
Min	0.00	0.00	1.00	0.00
Expected	25.00	0.00	2.00	0.00
Max	50.00	0.00	3.00	0.00

Model Notes

Probability: Current Probable 80.00% Planned Residual NIL 0.00%

Title Failure to of Spoil Acceptor to extend CEC Planning Permission for Landfill

Plan Owner Undefined

High Level Plan Description Assist Spoil Acceptor in gaining CEC extension to license for landfill

Fallback Plan Description Enter into negotiation with other spoil acceptor

Title	Action Owner	Due
Assist Spoil Acceptor in gaining CEC license extension for spopol acceptance	J Buchanan	27-Aug-2007
Gain CEC assistance in negotiating a rate reduction	J Buchanan	27-Aug-2007
Use a professional factor to appeal the Valuation Board assessment	J Buchanan	27-Aug-2007
Enter into negotiation with other spoil acceptors	J Buchanan	31-Aug-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 873

Area of Risk: 7.1.3 Depot

Event: Delay to start of Mass Earth Works Phase 2 & 3

Owner: J Buchanan

Risk Area (OB): **Status:** Open

Description:

Effect: Critical delay to programme

Cause: Late receipt SDS Depot Design for Utilities Diversions

Risk Rating: 9.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Minor	NIL

Expected 0.00 0.00 2.00 0.00

Model Notes

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title: Delay to Mass Earth Works

Plan Owner: Undefined

High Level Plan Description: Agreement with all Utility parties that dates can be met

Fallback Plan Description: Carry out Advance spoil removal works around utilities

Title	Action Owner	Due
Start Earthworks early pre- Utility diversions	J Buchanan	24-Aug-2007
Areas of work will continue to be identified that are unaffected by utilities	J Buchanan	31-Mar-2008

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 142

Area of Risk: 7.4 Tramco

Event Specification for on-board and supervisory equipment has not been established for Trams on Phase 1A.

Owner D Powell

Risk Area (OB) Client Specific > Inadequacy of Business **Status:** Open
Case

Description

Effect: A high specification is required for on-board supervisory and comms equipment.

Cause Base estimate allows only for minimum on-board supervisory and comms equipment.

Risk Rating: 9.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Minor	NIL	NIL	NIL
Min	0.00		0.00	
Expected	75.00	0.00	0.00	0.00
Max	675.00		0.00	

Model Notes Cost impacts per tram - Max £25k, ML £5k and Min £0. 27 Trams on Line 1A.

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title Freeze Spec for On board Supervisory & Comms Eqpt

Plan Owner Undefined

High Level Plan Description Review current Spec and ensure TEL/Trandev sign upto it

Fallback Plan Description

Title	Action Owner	Due
Review current Spec and ensure TEL/Trandev sign upto it	D Powell	02-Apr-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 169

Area of Risk: 1 GENERAL/OVERALL

Event: Other major projects in Edinburgh interface with Tram

Owner: S Clark

Risk Area (OB): External Influences > Other **Status:** Open

Description

Effect: Delay in sequence in certain areas, Additional interface project management costs.

Cause: Concurrent major projects in Edinburgh

Risk Rating: 9.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Minor	Minor	NIL	NIL
Min	0.00	0.00	0.00	0.00
Max	100.00	100.00	0.00	0.00

Model Notes: Assume £100k additional project management costs for additional meetings. No critical delay. Current and Residual assessment assumes Interface PM has been appointed (strategy approved) and can manage to avoid critical delay.

Probability: Current Possible 50.00% Planned Residual Remote 20.00%

Title: Understand interfaces and avoid detrimental effects

Plan Owner: Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Set up regular interface meeting with EARL.	S Clark	29-Dec-2006
Get Interface and any critical path items into the Tram Programme	T Hickman	30-Apr-2007
Appoint Interface Project Manager	T Glazebrook	31-May-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd

Risk ID : 1006

Area of Risk: 7.3 Infraco

Event Failure to comply with the Submittal Programme timescales

Owner S Clark

Risk Area (OB) **Status:** Open

Description

Effect: Delay and additional costs

Cause

Risk Rating:

Significance:

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	<input type="text" value="Minor"/>	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>	<input type="text" value="NIL"/>

Expected 50.00 0.00 0.00 0.00

Model Notes

Probability: Current 50.00% Planned Residual 0.00%

Title Response Plan

Plan Owner Undefined

High Level Plan

Description

Fallback Plan

Description

Title	Action Owner	Due
Mitigation is to agree a response plan between Infraco, tie and external parties that can be used to manage away this risk. Clause 10 requires Infraco to issue a reminder to tie. Furthermore failure to respond is deemed to be a no objection thereby no	S Clark	31-Jan-2011

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 167
Area of Risk: 7.3 Infraco
Event: Contractor specialist materials procurement problems
Owner: T Glazebrook
Risk Area (OB): Procurement > Other **Status:** Open

Description

Effect: Programme delay and assumed output not possible
Cause: Long/ inaccurate lead times on various materials especially steel and copper.

Risk Rating: 9.0 **Significance:** Medium

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Minor	NIL	NIL	NIL
Min	0.00		0.00	
Expected		0.00		0.00
Max	200.00		0.00	

Model Notes: Delay relates to that over-and-above implemented ordering programme.

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title: Contractor specialist materials procurement problems
Plan Owner: Undefined
High Level Plan Description: Monitor Infraco procurement and any problems / delays arising thereof
Fallback Plan Description: Infraco risk

Title	Action Owner	Due
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Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 891

Area of Risk: 2.9 TEL

Event Key assumption on deliverability of bus/tram integration in TEL Business Plan rendered invalid at Final Business Case

Owner A Richards

Risk Area (OB) **Status:** Open

Description

Effect: Operational business case is undeliverable or not fully deliverable, financial viability of operations is affected. Transport Scotland may not approve project.

Cause Workable design for physical integration of tram and bus to support service integration plan is not achieved. Optimal combined bus/tram position is not identified. Interchange design not appropriate.

Risk Rating: 6.0 **Significance:** Low

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Reputation (N/A)		Revenue p.a. (£k)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	NIL	NIL	Moderate	Insignificant	Moderate	Insignificant
Min	0.00	0.00	0.00	0.00	3.00	0.00	175.00	0.00
Max	0.00	0.00	0.00	0.00	3.00	1.00	175.00	25.00

Model Notes Interchanges are now designed at Foot of the Walk and St Andrew Square. Residual risk that these are insufficient to support interchange but reduced probability.

Probability: Current Improbable 2.50% Planned Residual Improbable 2.50%

Title Design and agree solution with TEL

Plan Owner Undefined

High Level Plan Description Ensure functionality of tram and bus interchanges and available capacity.

Fallback Plan Description

Title	Action Owner	Due
Devlop designs and discuss with relevant stakeholders	A McGregor	26-Jun-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 890
Area of Risk: 2.2 Transdev
Event: Key performance indicators for DPOFA are not agreed
Owner: A Richards
Risk Area (OB) **Status:** Open

Description

Effect: In absence of KPIs, would have to refer to Dispute Resolution to resolve issues.

Cause: DPOFA amendment is not fully negotiated

Risk Rating: **Significance:**

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Moderate	NIL	NIL	NIL

Expected 300.00 0.00 0.00 0.00

Model Notes

Probability: Current 2.50% Planned Residual 0.00%

Title: Negotiate DPOFA amendment
Plan Owner: Undefined
High Level Plan Description: Continue to evolve the regime as part of Phase B activities
Fallback Plan Description:

Title	Action Owner	Due
Negotiate as part of DPOFA amendment	A Richards	28-Dec-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 26

Area of Risk: 1.1 Land & Property

Event Use of legal advisors required beyond current budget

Owner A Sim

Risk Area (OB) Procurement > Dispute & Claims **Status:** Open

Description

Effect: Legal/ advisor budget may be exceeded

Cause Protracted negotiation, additional claims, late acquisitions or late claims in relation to land and property

Risk Rating: **Significance:**

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Minor	NIL	NIL	NIL
Min	100.00		0.00	
Expected		0.00		0.00
Max	100.00		0.00	

Model Notes Legacy issue after operations have commenced. May need ad hoc legal support (notional 3 months)

Probability: Current 25.00% Planned Residual 0.00%

Title Renegotiation of legal contractual arrangements

Plan Owner Undefined

**High Level Plan
Description**

**Fallback Plan
Description**

Title	Action Owner	Due
Reduce the legal budget	A Sim	31-Jul-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 6
Area of Risk: 1.1 Land & Property
Event tie required to assume asset management role during and following construction
Owner A Sim
Risk Area (OB) Client Specific > Other **Status:** Open

Description

Effect: Increased legal and management costs to deal with change. Delay to construction programme.

Cause CEC fails to manage existing assets or changes

Risk Rating: 5.0 **Significance:** Low

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Minor	NIL	NIL	NIL
Min	50.00		0.00	
Expected	100.00	0.00	0.00	0.00
Max	200.00		0.00	

Model Notes Programme impact may not be on critical path.

Probability: Current Remote 20.00% Planned Residual NIL 0.00%

Title Land lease between tie and CEC

Plan Owner Undefined

**High Level Plan
Description**

**Fallback Plan
Description**

Title	Action Owner	Due
Agree terms of lease and responsibilities for land between CEC and tie	A Sim	31-Aug-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd

Risk ID : 869

Area of Risk: 7.1.1 Invasive Species

Event Extent of Invasive Species Area Exceeds Estimate from Survey

Owner D Burns

Risk Area (OB) **Status:** Open

Description

Effect: Underestimating the extent of works; leads to an increase in cost

Cause Surveying team unable to obtain access to Network Rail, BAA and other privately owned land because they were not cleared to access this land (including PTS).

Risk Rating: **Significance:**

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)		Environmental (N/A)	
	Current	Planned Residual	Current	Planned Residual	Current	Planned Residual
	Insignificant	NIL	NIL	NIL	Minor	NIL
Expected	20.00	0.00	0.00	0.00	1.50	0.00

Model Notes

Probability: Current 17.50% Planned Residual 0.00%

Title Transfer risk to specialist contractor

Plan Owner Undefined

High Level Plan Description Transfer risk

Fallback Plan Description

Title	Action Owner	Due
Ensure risk fully transferred to specialist contractor during tender negotiations	D Burns	03-Apr-2007
Site staff to remeasure previously unsurveyed areas of Network Rail land with contractor	D Burns	28-Sep-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 205

Area of Risk: 7.3 Infraco

Event Network Rail emerging Group and Company Standards are different at time of construction

Owner S Clark

Risk Area (OB) External Influences > Legislation & Regulation **Status:** Open

Description

Effect: New standards require to be adopted resulting in re-design, delay and increased construction cost.

Cause Network Rail issue new Group and Company Standards during construction. Design and construction is aligned to current Network Rail Group and Company Standards.

Risk Rating: 5.0 **Significance:** Low

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Minor	NIL	NIL	NIL
Min	0.00		0.00	
Expected		0.00		0.00
Max	150.00		0.00	

Model Notes Minimal risk as much warning is given for changes in Group and Company Standards. Most likely area affected would be temporary works. Additionally, NR have accepted in principle although not signed the APA which contains a clause that Tram only requires to adhere to current standards. Risk closure is imminent and probability reduced.

Probability: Current Remote 20.00% Planned Residual NIL 0.00%

Title Alignment of Standards and Asset Protection Agreement

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
Ensure standards issues are contained in the Asset Protection Agreement with Network Rail	A Sommerville	30-Jun-2008

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 877

Area of Risk: 7.1.3 Depot

Event: Delay to water and waste water design completion in depot area

Owner: J Buchanan

Risk Area (OB): **Status:** Open

Description:

Effect: Delay to start of utility diversion works, programme & increased cost

Cause: Delayed approvals from Scottish Water and/or SEPA

Risk Rating: 4.0 **Significance:** Low

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	NIL	NIL	Minor	NIL
Expected	0.00	0.00	1.50	0.00

Model Notes

Probability: Current Improbable 2.50% Planned Residual NIL 0.00%

Title: Gain utilities approvals and confirm design

Plan Owner: Undefined

High Level Plan Description: Diversion works carried out as per programme

Fallback Plan Description: Arrange spoil removal works to be carried out outside a Utility exclusion zone until the utility in question has been diverted

Title	Action Owner	Due
Agree strategy for diverting pipes with Scottish Water	J Buchanan	23-Feb-2007
Get indicative wastewater volumes from SDS	J Buchanan	31-Jul-2007
SDS to produce design and drawings for water pipe diversion	J Buchanan	10-Sep-2007
Meet with SEPA to confirm wastewater volumes and obtain final agreement (outline agreement already in place)	J Buchanan	10-Sep-2007

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 337

Area of Risk: 2 PROCUREMENT CONSULTANT

Event OJEU procurement process is challenged

Owner B Dawson

Risk Area (OB) External Influences > Legislation & Regulation **Status:** Open

Description

Effect: Possible retender; Delays; Legals costs to deal with challenge

Cause Unsuccessful tenderer challenges procurement process (Tramco or Infracore)

Risk Rating: 4.0 **Significance:** Low

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Minor	NIL	NIL	NIL
Min	0.00		0.00	
Expected		0.00		0.00
Max	100.00		0.00	

Model Notes Not quantified yet. Project treatment of risk would be to hire a legal team to defend and divert the effects of a challenge rather than delay project. OJEU process is known and followed and changes to legislation are not expected at present. Notional figure of up to £100k worth of costs.

Probability: Current Improbable 5.00% Planned Residual NIL 0.00%

Title Follow OJEU procurement regulations

Plan Owner Undefined

High Level Plan Description Follow OJEU procurement regulations

Fallback Plan Description

Title	Action Owner	Due
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Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 150
Area of Risk: 7.3 Infraco
Event Geographic areas where radio/mobile communications cannot obtain signal
Owner T Glazebrook
Risk Area (OB) Client Specific > Poor Project Intelligence **Status:** Open

Description

Effect: Additional remedial equipment required e.g. repeater masts, booster packs etc
Cause Blackspots for radio/mobile communications

Risk Rating: **Significance:**

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Insignificant	NIL	NIL	NIL
Min	0.00		0.00	
Expected		0.00		0.00
Max	10.00		0.00	

Model Notes It is thought that Line 1A, particularly at its extremities, may be an issue. Whole cost impact therefore allocated to Line 1A.

Probability: Current 50.00% Planned Residual 0.00%

Title
Plan Owner
High Level Plan Description
Fallback Plan Description

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 143

Area of Risk: 7.4 Tramco

Event Specification for on-board and supervisory equipment has not been established for Trams on Phase 1B.

Owner D Powell

Risk Area (OB) Client Specific > Inadequacy of Business Case **Status:** Open

Description

Effect: A high specification is required for on-board supervisory and comms equipment.

Cause Base estimate allows only for minimum on-board supervisory and comms equipment.

Risk Rating: 3.0 **Significance:** Low

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Insignificant	NIL	NIL	NIL
Min	0.00		0.00	
Expected	25.00	0.00	0.00	0.00
Max	100.00		0.00	

Model Notes Cost impacts - Max 25k, ML £5k and Min £0 per tram. 4 Trams on Line 1B.

Probability: Current Possible 50.00% Planned Residual NIL 0.00%

Title Freeze Spec for onboard Supervisory and Comms eqpt

Plan Owner Undefined

High Level Plan Description Review Spec for On board supervisory and Comms EQPT with TEL/Trandev and ensure that it is agreed

Fallback Plan Description

Title	Action Owner	Due
Review Spec for On board supervisory and Comms EQPT with TEL/Trandev and ensure that it is agreed	D Powell	02-Apr-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 982
Area of Risk: TIE Ltd
Event: All five TROs are subject to public hearings and there is no allowance for this in the base estimate
Owner: K Rimmer

Risk Area (OB) **Status:** Open

Description

Effect: Additional cost; Delay to project

Cause

Risk Rating: **Significance:**

Assessment Matrix Default

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Insignificant	NIL	NIL	NIL
Min	0.00		0.00	
Expected	400.00	0.00	0.00	0.00
Max	1000.00		0.00	

Model Notes

Probability: Current 50.00% Planned Residual 0.00%

Title

Plan Owner

**High Level Plan
Description**

**Fallback Plan
Description**

Caveat: Undefined

Classification: Undefined

Business Folder: TIE Ltd **Risk ID :** 319
Area of Risk: 7.4 Tramco
Event: Trams found to be incompatible during commissioning
Owner: D Powell
Risk Area (OB): Procurement > Information Management **Status:** Open

Description

Effect: Delay to commissioning, costs to deal with issue
Cause: Trams are not compatible and interoperable with each other and other parts of the system

Risk Rating: 2.0 **Significance:** Low

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Insignificant	NIL	NIL	NIL
Min	0.00		0.00	
Expected		0.00	0.00	
Max	50.00		0.00	

Model Notes Costs do not relate to Trams being interoperable with each other as this is expected to be a nil to very low probability. Main cost is re-engineering of Unimog. OHLE and Depot/Workshop integration could also be a risk. Supervisory and Comms and kinematic envelope issues covered by other risks.

Probability: Current Remote 10.00% Planned Residual NIL 0.00%

Title: Tram Interface Management Plan
Plan Owner: Undefined
High Level Plan Description: Review current Interface status and generate plan to close out open issues by end May
Fallback Plan Description: Transfer residual issues to Infracore at Novatio

Title	Action Owner	Due
Review current Interface status and generate plan to close out open issues by end May	D Powell	31-May-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 104
Area of Risk: 3 DESIGN
Event Delay in detailing of stops, trackway, OLE etc for Phase 1B
Owner D Powell
Risk Area (OB) Procurement > Information Management **Status:** Open

Description

Effect: Time delay and consequent costs
Cause Delay in design information release from specialist tram manufacturer

Risk Rating: 2.0 **Significance:** Low

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Insignificant	NIL	NIL	NIL
Min	0.00		0.00	
Expected	25.00	0.00	0.00	0.00
Max	83.00		0.00	

Model Notes Total risk for whole network is Max £0.83m, ML £0.25m and Min £0. This has been split proportionally between Lines 1a and 1b by base estimate costs with 90% apply to 1A and 10% to 1B.

Probability: Current Remote 15.00% Planned Residual NIL 0.00%

Title Ensure Tram preferred bidders fully submit all required interface info to to tie/SDS and sign off to it at TSA award
Plan Owner Undefined
High Level Plan Description
Fallback Plan Description Transfer residual to Infraco at novation

Title	Action Owner	Due
Ensure Tram preferred bidders fully submit all required interface info to to tie/SDS and sign off to it at TSA award	D Powell	19-Jul-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 162
Area of Risk: 3 DESIGN
Event Gaining access to land prior to purchase for advanced works
Owner S Clark
Risk Area (OB) Environment > Permits, Consents & Approvals **Status:** Open
Description
Effect: Increased management costs and delays to design
Cause Land is not acquired yet
Risk Rating: **Significance:**

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Insignificant	NIL	NIL	NIL
Min	0.00		0.00	
Expected		0.00		0.00
Max	30.00		0.00	

Model Notes Cost assumes 20% cost of surveys plus management. As of 23-10-06, no programme impact.

Probability: Current 10.00% Planned Residual 0.00%

Title Gaining Access to Land Prior to Purchase for Advanced Works
Plan Owner Undefined
High Level Plan Description
Fallback Plan Description

Title	Action Owner	Due
Identify Land Required	S Clark	30-Apr-2007
Arrange for Licenses	S Clark	30-May-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 304

Area of Risk: 7.3 Infraco

Event Utilities (diverted by MUDFA or left in place) are found to be in the path of infrastructure works at time of construction

Owner S Clark

Risk Area (OB) Procurement > Poor Contractor Capabilities **Status:** Open

Description

Effect: Additional utilities diversions are required to be undertaken by Infraco with additional cost and programme impacts

Cause Infrastructure design development e.g. building fixing approvals not achieved as designed

Risk Rating: 2.0 **Significance:** Low

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Insignificant	NIL	NIL	NIL
Min	0.00		0.00	
Expected		0.00		0.00
Max	25.00		0.00	

Model Notes Assessment, as of 20/04/07, assesses only for use of OLE poles instead of building fixings and requirement to do small utility work e.g. lighting

Probability: Current Remote 20.00% Planned Residual NIL 0.00%

Title Use of as built drawings and INFRACO contract

Plan Owner Undefined

High Level Plan Description

Fallback Plan Description

Title	Action Owner	Due
INFRACO contract to allow for these utilities	B Dawson	30-Jun-2007
MUDFA to create as built drawings	G Barclay	30-Dec-2008

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 177

Area of Risk: 7.3 Infraco

Event InfraCo seeks compensation as a result of external events having an impact on Construction

Owner S Clark

Risk Area (OB) External Influences > Other **Status:** Open

Description

Effect: Legal costs and compensation costs for events not agreed in contract

Cause Unforeseen external events impact on Construction

Risk Rating: 2.0 **Significance:** Low

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Insignificant	NIL	NIL	NIL
Min	0.00		0.00	
Expected	25.00	0.00	0.00	0.00
Max	50.00		0.00	

Model Notes Whole risk allocated to Line 1A as this is believed to be where the risk will occur. Any delay, over and above what is already accounted for in programme, is unlikely to be critical.

Probability: Current Remote 30.00% Planned Residual NIL 0.00%

Title Mitigation Plan for Unforeseen External Events

Plan Owner Undefined

**High Level Plan
Description**

**Fallback Plan
Description**

Title	Action Owner	Due
Identify unforeseen external events	S Clark	30-Jun-2007
Develop Mitigation Plans	S Clark	30-Sep-2007

Caveat: Undefined **Classification:** Undefined

Business Folder: TIE Ltd **Risk ID :** 76
Area of Risk: 2 PROCUREMENT CONSULTANT
Event: Change of client during works
Owner: A Richards
Risk Area (OB): Client Specific > Other **Status:** Open

Description

Effect: Delay and cost during re-negotiation of DPOF contract and additional approvals process

Cause: Introduction of TEL as client

Risk Rating: 1.0 **Significance:** Low

Assessment Matrix Edinburgh Tram

Model Notes	CAPEX Cost (£k)		Programme (Days)	
	Current	Planned Residual	Current	Planned Residual
	Insignificant	NIL	NIL	NIL
Min	12.50		0.00	
Expected		0.00		0.00
Max	12.50		0.00	

Model Notes: Assume £100k additional project management costs for additional meetings. Delays to programme covered by PROC1.

Probability: Current Improbable 5.00% Planned Residual NIL 0.00%

Title: TEL as Client for DPOFA Contract
Plan Owner: Undefined
High Level Plan Description: TEL as Client is now fully anticipated by TETL, formalise assignment at start of shadow running
Fallback Plan Description:

Title	Action Owner	Due
Send Assignment letter ahead of Shadow Running	A Richards	01-Oct-2010

Caveat: Undefined **Classification:** Undefined