

1 Background and Introduction Objectives

1.1 This paper briefly outlines the requirement and options for the procurement of Investigation Services (IS) and Investigation Works (IW)¹ in connection with the overall procurement of the proposed Edinburgh Tram Network (ETN). An opportunity has been identified to make progress with IS and IW ahead of the appointment Systems Design Services (SDS) consultant in mid May 2005.

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1.2 Against this background the key matters to be understood are:

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1. The existence and confidence in investigation data and information generated by the Parliamentary process.
2. The suitability and completeness of this data and information to the SDS consultant for the purposes of detailed design.
3. Identification of opportunities and priorities in respect of IS and IW to enable unhindered SDS progress on appointment.
4. The budget required for executing IS and IW in advance of the SDS appointment.
5. Risks and consequences associated with undertaking IS and IW in advance of appointing the SDS and the consequences of doing nothing until the appointment of the SDS.
6. What can be done now to facilitate IS and IW to permit tie maximum flexibility in the period up to the appointment of the SDS.

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1.2 IS determines the physical characteristics of sites as they affect design and construction of the tram network and stability of neighbouring structures. IW encompasses the exploration and recording of the location and characteristics of soil, rock and ground conditions, utilities, clearances and adjacent infrastructure (for example, city centre basements and Network Rail Controlled Infrastructure). Aspects of both have been undertaken for Lines 1, 2 and 3 via tie's technical consultants engaged to support the Parliamentary process.

1.3 Items 1 to 4 are actions that have already commenced. This paper briefly considers item 5 and concentrates on item 6. The accuracy and reliability of the data and information produced by IS/IW is a matter of commercial importance to all those involved in the construction of the network. The interests of tie are paramount as erroneous information may invalidate aspects of permanent works design of the works completed prior to the novation of the Systems Design Services (SDS) consultant to Infraco.

1.4 Under the present procurement strategy, it is understood that tie, and not the Infraco, will directly commission the diversion of utilities.

2 Timescales

2.1 The timescale for the procurement of the SDS and Infraco are 30 Junemid May 2005 and mid 2006 respectively. The former may be delayed by the outcome of the forthcoming Congestion Charge Referendum. The appointment of the latter may be accelerated as a consequence of 'tax funding', requiring financial close of Infraco procurement by 1 March 2006. A decision on accelerated appointment of the Infraco will be reached by 1 March 2005.

2.2 It is understood that a number of key utilities require diverting and that the lead-time associated with these is of order of 12 months followed by 6 months site work². On this basis, diversions instructed now would not be achieved until the end of June 2006. This may impact the commencement of Infraco's construction period.

2.3 On the basis that the SDS may not be appointed for at least another 4 months and that some specific matters already require investigation, it is imperative that tasks be progressed now to provide tie with maximum flexibility in decision-making.

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¹ The use of Site Investigation and Ground Investigation is avoided here due to the broader issues relating to investigating the route associated with the Edinburgh Tram Network. IS determines all physical characteristics of sites as they affect design and construction of the ETN and integrity of neighbouring infrastructure and property. IW encompasses the exploration and recording of the location and characteristics of soil, rock and ground conditions, utilities, clearances and adjacent infrastructure (for example, city centre basements and all assets on Network Rail Controlled Infrastructure). Aspects of both have been undertaken for Lines 1, 2 and 3 via tie's technical consultants engaged to support the Parliamentary process.

² Under the overall procurement strategy, it is proposed that tie, and not the Infraco, will directly commission the diversion of utilities. This strategy remains under review.

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3 Requirements

3.1 IS and IW require the procurement of both Professional Services and Physical Works.

3.1.2 Beyond the work done to support the Parliamentary process, information is required by the SDS and Infraco for the appropriate and economic design of the permanent works. It is also likely to be relied upon for other purposes, such as temporary works and the potential extent of tie's liability to third parties. The form and contractual status of the information produced from investigations must therefore be compatible with the form of contract adopted for the SDS and, subsequently, Infraco.

3.2 The accuracy, reliability and timing of the data and information produced by IS / IW is a matter of commercial importance to all those involved in the construction of the ETN. The interests of tie are paramount as erroneous, incomplete or late information may invalidate or delay aspects of permanent works design of the works completed prior to the novation of the Systems Design Services (SDS) consultant to Infraco.

3.3 There is an immediate requirement for IS and IW to influence and facilitate the advanced diversion of key utilities with long lead times.

3.4 To facilitate any IW or advanced works on site, the appointment of a Planning Supervisor under the Construction (Design and management) Regulations is mandatory necessary.

4 Procurement Options

4.1 A number of options exist for the procurement of IS and IW. In short, there is a requirement to provide IS to direct and report on IW and desktop activities, and a need to execute IW to provide factual data. IS and IW respectively require the procurement of professional services and physical works. The former may be achieved through

IS may be provided by:

- tie's in-house technical expertise (for example, Tom Blackhall in the case of utilities);
- a consultant other than the SDS (including one or both of the incumbent technical consultants, if permitted by current terms of engagement Mott MacDonald or Faber Maunsell); or
- , depending on timing, the SDS, or itself;
- Also, some ground investigation contractors may have with IS capability.

The IW contractor is likely to will either be engaged by either tie or the SDS; appointment by the Infraco would be too late to obtain the data required to inform detailed design.

4.2 For IS, tie therefore has three contracting options for IS: in-house personnel direct or consultancy appointment, variation of existing commissions with incumbent consultants (where permitted by their current terms of engagement) and use of bespoke professional services agreements currently under development by DLA.

4.3 The IW contractor(s) may be engaged either by tie or the party providing IS. Given the varied nature of the features requiring investigation, IW may involve a number of different contractors, either engaged directly by tie or under sub-contract to one main contractor. A specific issue in this respect here is the competence of IW contractors to execute works on Network Rail Controlled Infrastructure.

4.4 The Planning Supervisor may be provided by tie's in-house expertise a consultant other than the SDS (including one or both of the incumbent technical consultants) SDS (pre-novation to Infraco) or the Technical Support Services (TSS) consultant³.

4.5.4 The following procurement options for IS and IW have been identified:

³ The TSS will provide continuous technical support to tie throughout the duration of the implementation of the ETN. It is understood that the TSS and SDS will be appointed simultaneously.

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Option	Professional Services(S undertaken by:	Physical Works(IW undertaken by:	Comment
1	tie	IW contractor (appointed by tie)	Requires novation to SDS and then Infraco?. Permits early commencement subject to approval of tie procurement procedures. Increases contractual interfaces.
2	Other Consultant* (appointed by tie)	IW contractor (appointed by tie or other consultant)	Requires novation to Infraco?. Permits early commencement of IW if incumbent consultant used. Increases contractual interfaces unless incumbent consultants used (if permissible?);
3	Other Consultant (appointed by tie)	IW contractor (appointed by Other Consultant)	Requires novation to Infraco? Permits early commencement of IW if incumbent consultants used (is permissible?);
43	SDS (appointed by tie)	IW contractor (appointed by tie)	Requires novation to SDS or Infraco. Delays potential start of IW.
54	SDS (appointed by tie)	IW contractor (appointed by SDS)	Requires novation to Infraco. Limits contractual interfaces. Delays potential start of IW.
56	IW contractor (appointed by tie)	IW contractor (appointed by tie)	Dependent upon IW contractor capability. Potential for quick start.
4.5	In parallel with developing the overall procurement strategy for the project, tie are finalising their internal procurement procedures and processes. It is anticipated that these will be accepted at the tie executive board meeting in February 2005.		
* Other Consultant refers to a consultant other than the SDS and may, subject to existing terms of engagement, be either of the incumbent consultants engaged on for the Parliamentary process.			

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4.66 The simplest management of the IS and IW is provided by Option 5; allowing the SDS to procure and manage IS and IW has obvious benefits. Options 1, 2, 3 and 2 and 6 offer the opportunity to undertake IS and IW activities in advance of SDS appointment. The objective must be to make positive use of the lag period to provide the SDS with useful data and information at its appointment.

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4.7 Option 3 would provide the most expeditious progress whilst minimising tie's contractual interfaces if the incumbent technical consultants (Mott MacDonald and Faber Maunsell) are engaged to provide IS. There are, however, possible EU procurement associated with the potential size of the IS commission (particularly the IW is let as a sub-contract) and the extent to which the existing terms of engagement can be varied. There is also a question over the involvement of an incumbent consultant during the TSS and SDS competitions.

5 Risks

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5.1 Various risks exist to the overall success of ETN whether IS and IW is procured before, or on, the appointment of the SDS. Some of these may also be issues for the SDS. An initial overview of such risks is considered below.

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Risk	Consequence
<u>Scenario 1 – Do nothing until the appointment of SDS</u>	
<u>Loss of momentum at start of SDS commission.</u>	<u>Reduced timescale for SDS detailed design prior to novation to Infraco.</u>
<u>Lack of access to third party property.</u>	<u>Reduced timescale for SDS detailed design prior to novation to Infraco.</u>
<u>Scenario 2 – Commission IS and IW prior to appointment of SDS</u>	
<u>Aspects of IS and IW procured partly by tie and partly by SDS.</u>	<u>Liability for IS and IW output procured by tie; consistent scoping and specification of IS and IW; consistent presentation of IS and IW deliverables for future use.</u>
<u>More complicated contractual interface with SDS.</u>	<u>SDS refusal to accept IS and IW deliverables without qualification; increased potential for re-work of IS and IW undertaken prior to SDS appointment.</u>
<u>Lack of capacity in tie in-house team to administer IS and IW contracts.</u>	<u>tie personnel deflected from other activities.</u>
<u>Use of incumbent consultants beyond original remit whilst they are also engaged in TSS and SDS competitions, leading to accusation of unfair advantage.</u>	<u>Compromised TSS / SDS competition.</u>
<u>Damage to utilities during IW.</u>	<u>tie liable for damage caused.</u>
<u>Scenarios 1 and 2</u>	
<u>Objections to the commencement any physical survey works in sensitive areas in advance of Royal Assent.</u>	<u>Adverse publicity; possible cessation of works; delay to detailed design programme.</u>
<u>Contractual standing of IS / IW deliverables to be transferred to Infraco.</u>	<u>Qualified acceptance of IS / IW deliverables.</u>

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- Maunsell can be varied to provide IS support.
- 14. Dependent upon positive outcome to action 14, prepare and issue brief for Mott MacDonald and Faber Maunsell to provide summary report answering technical actions 1 to 5 inclusive. 18/02/05
 - 15. Establish appropriate forms of contract for procuring IW. Standard forms⁴ exist for these purposes but may require specific amendment to incorporate any special conditions imposed by tie or the City of Edinburgh Council (CEC) and Network Rail (GB and DLA) 11/02/05
 - 16. On the basis of the technical requirements and prescribed procurement timescales (OJEU or other determined by tie or City of Edinburgh Council Standing Orders) confirm preferred procurement strategy for IS and IW works and obtain necessary tie authority to place contracts (post March Scottish Executive board meeting?). 02/05
 - 17. Establish appropriate agreements with utilities, Network Rail and property owners to facilitate IS and IW identified by the technical review. tba
- 5.3 Procurement actions include:
- 10. ~~Determine Work Breakdown Structure and key Work Packages on the basis of the technical review undertaken above.~~
 - 11. ~~As a priority, prepare and publish OJEU notices for Work Packages. Contract documents may then be prepared in parallel with the statutory notice periods.~~
 - 12. ~~Confirm DLA's drafting of professional services agreements is appropriate for advising on IS and IW.~~
 - 13. ~~Establish appropriate forms of contract for procuring IW. Standard forms⁵ exist for these purposes but may require specific amendment to incorporate any special conditions imposed by tie or the City of Edinburgh Council (CEC) and Network Rail.~~
 - 14. ~~Confirm the status of tie's procurement policy and processes. It is understood that aspects of these are still under review for approval by the tie board. Establish procurement mechanism in the absence of approved procedures. This work is being led by Mark Bourke.~~
 - 15. ~~On the basis of the technical requirements and prescribed procurement timescales (OJEU or other determined by tie or City of Edinburgh Council Standing Orders) establish preferred procurement strategy for IS and IW works and obtain necessary tie authority to place contracts.~~
 - 16. ~~Establishing appropriate agreements with utilities, Network Rail and property owners to facilitate any physical work that is identified by the technical review.~~
 - 17. ~~Establish the overall programme for IS and IW procurement. This will be done in conjunction with David Ramsay, commencing with a co-ordination meeting on 22/01/05.~~

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⁴ For example, ICE Conditions of Contract, Ground Investigation Version, 2nd Edition, November 2003, ICE, ACE, CECA
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76 Recommendation

76.1 The following recommendations are made:

1. If permissible from an EU procurement perspective pursue Option 3 (page 2) as the basis of progressing IS. This would simply be a variation to the existing terms of engagement for the incumbent technical. On the basis of discussions held with the Mott MacDonald and Faber Maunsell, an overview of what should be prioritised in respect of IS and IW may be achieved by 11/02/05.
 2. Concentrate team efforts on utilities and Network Rail.
 3. Pursue the technical and procurement actions detailed above.
1. Pursue the above technical and procurement actions.
 2. ~~A cursory overview of the work undertaken during the Parliamentary process and the lag until the appointment of the SDS provides the opportunity to commit resources to undertaking investigation services~~
 3. Establish a Procurement Review Panel to focus the production of the

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