

Edinburgh Tram Project

Forensic Planning Exercise

undertaken for tie Limited

on the instructions of

Susan Clark (Deputy Project Director)

and

Dennis Murray (Commercial Director)

Progress Report No. 3

(for work undertaken during w/e 8th May 2009)

Author

Iain McAlister

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1 Activities Undertaken

- 1.1 During this week Acutus effort has, primarily, been focused on the detailed examination of Infraco's progressed programme.
- 1.2 Planned v actual information for IFC drawings and completion of MUDFA activities has been isolated to identify the actual impact of each of these delays on the individual sub-sections of the programme.
- 1.3 The critical path of Infraco's current programme has been tracked through the network to identify the activity relationships and constraints that are driving completion.
- 1.4 To test the allegation that Infraco is failing in its obligation to mitigate delay, work has commenced on evidencing prime examples.
- 1.5 As previously requested by **tie**, (Ref. paragraph 2 of Progress Report No. 2) a specimen resource return spreadsheet has been prepared for the Infraco contract.
- 1.6 As anticipated, there has been no need for meetings this week with **tie** personnel and its consultants.

2 Observations

- 2.1 The following observations build upon the principal issues identified in previous reports. Detailed examination of the data provided by **tie** is identifying examples that support **tie's** assertion that Infraco appears to be doing very little to mitigate delay and thereby minimises costs. This is contrary to the express requirements of the Contract.
- 2.2 Examination of the actual dates for IFC drawings and completion of MUDFA activities has identified many of them as the source of significant delay to several sub-sections of the programme. However, there are many other sub-sections where Infraco activities have yet to commence despite IFC drawings being in place and MUDFA works being substantially complete. From previous discussion with **tie** staff it is understood there may be other reasons why this is so. It is intended to investigate these matters further in the forthcoming weeks with particular focus on reason and liability for the ongoing delay.
- 2.3 Infraco's most recent "Period Report" (No. 2-1 to 25 April 2009) informs of an increase in the delay to the Open for Revenue Date (OFRD) of 3 months. This has accumulated



over the 1 month reporting period. Infraco attribute this, primarily, to the additional earthworks activity at the Gogar Depot. Detailed examination of this part of Infraco's impacted programme has identified what appear to be excessively long durations allocated to the earthworks (original and additional). It projects completion of these activities to 13 January 2010. By inspection of the site, this work is already well advanced and likely to be complete in a matter of weeks rather than in over 7 months time. In respect of these critical path activities, their durations appear to be grossly overstated.

- 2.4 The succeeding depot track works are linked to the end of the aforementioned earthworks by adopting a strict adherence to a series of finish-to-start activity relationships. These link into long strings of preferential logic links that appear to have been inserted for track laying resource scheduling purposes. No attempt appears to have been made to re-order these links to mitigate delay. Consequently, the projected OFRD is later than it need be. This issue will be investigated further in the forthcoming week.
- 2.5 The preferential links referred to above constrain the programme by limiting certain resource levels. These limits appear to be unnecessarily low. With the construction industry, in general, currently experiencing a severe shortage of work it would be thought there is considerable scope to recover lost time by increasing resources.
- 2.6 Our more detailed examination of the Infraco's progressed (impacted) programme is reinforcing the observation made in our earlier report that no real meaningful attempt is being made to re-programme the Contract to account for delays experienced to-date. This would appear to be contrary to Infraco's contractual obligation to, amongst other things, take reasonable steps to mitigate foreseeable losses and minimise all costs.



3 Proposed activities for the forthcoming week

3.1 The following table sets out the activities Acutus plan to undertake during Week 4 (w/c 11th May 2009)

Activity	Estimated remaining effort (manhours)	Indicative timetable (Week No.)	Comment/Progress
1. Review of contract to understand provisions and mechanisms relating to time for completion, programme and entitlement to relief. This to include examination of risk allocation and the inter-relationships with other project contracts.	4	Substantially complete during week Nos. 1 & 2	Further work to be undertaken in relation to any matters that arise from the more detailed examination of the programme and any further advice that may be provided by tie in relation to interpretation of the Contract.
2. Review history of programme analysis to-date and the relevant contractual correspondence. (No further information provide by tie during Week No. 3 therefore this activity has been carried forward)	6	(History reviewed in Week No. 1).	tie is currently compiling schedules of the relevant contractual correspondence and, in particular, schedules of Compensation Event notices. These will be examined when that information becomes available.
3. Analyse and quantify delay, disruption and prolongation in the context of specific contractual requirements, including a cause and effect analysis, concurrency of delays and identification of responsibility for addressing same.	24	2, 3 & 4	Work commenced during Week No. 2 and is continuing through Week Nos. 3 & 4.
4. Challenge the programme and commercial approach to-date and identify strengths and weaknesses in process and evidence/actions to-date.	10	4 & 5	Further review of information received from tie at the end of Week No. 3. This to be review and challenged during weeks 4 & 5.
5. Provide view on opportunities to improve confidence in tie 's ability to negotiate a successful conclusion to programme delay and mitigation costs.	4	Weekly reports	Ongoing



Activity	Estimated remaining effort (manhours)	Indicative timetable (Week No.)	Comment/Progress
6. Identify / recommend opportunities for recovery or acceleration, if evident.	5	Weekly reports (as appropriate)	Ongoing via. Acutus Progress Reports

3.2 One meeting with Tom Hickman of **tie** has been organised for the morning of Wednesday 13th May 2009. No other direct interface with **tie** staff is anticipated during the forthcoming week. Acutus effort will continue to be concentrated on examination of the data and programmes provided by **tie**.

4 Proposed actions for consideration by **tie**

4.1 With reference to 2.6 above, consideration should be given to formally challenging Infraco’s approach to programming the Contract. If a positive and constructive approach is not adopted then **tie** should consider invoking the dispute resolution measures to compel Infraco to fulfil its general obligation to advance the contract works and mitigate delay.

4.2 With reference to 2.5 above, consideration should be given to formally requesting from Infraco the time and cost implications of it relaxing the resource limitations currently imposed on its programme.

4.3 In discussion with **tie** staff it has been stated that it may be possible to relax some of the programming restrictions and embargos specified in the Employer’s Requirements. If this has not already been done, it is suggested that **tie** write to Infraco making it aware of this possibility and asking it to provide information on the time and cost savings such relaxations could bring.

4.4 It is recognised that much of Infraco’s current programme is driven by preferential logic. Delays to some sub-sections mean that the logic network now contains some illogical work sequences. It is suggested that **tie** writes to Infraco asking it to make appropriate adjustments to the network logic and advise of the time saving realised.

4.5 If it is not already being done, it is recommended that the actual readiness of Infraco and its sub-contractors to commence available work is recorded in detail. Have sub-



contracts been signed? Are all necessary consents, approvals, risk assessments, method statement, quality plans and the likes in place? Are all necessary resources procured, fully prepared and ready to commence?

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