

1. Executive Summary

1.1. Carillion Utility Services (formerly Alfred McAlpine Infrastructure Services) described hereafter as the Contractor and **tie** Ltd executed the MUDFA Agreement on the 04th October 2006, initially undertaking the Pre-Construction Services and then the Construction Services which commenced on the 02nd April 2007.

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1.2. The Agreement was to carry out the MUDFA Works in respect of the Edinburgh Tram Network for Work Sectors 1,2,4,5,& 6 which comprised undertaking the Pre-Construction Services from the 31st July 06 to 22nd December 06 and the Construction Services from the 02nd March 07 until the 27th June 08 all of which was detailed in Schedule Eight Programme.

1.3. The obligation for the provision of the design of the works was ultimately with **tie**, who employed Parsons Brinckerhoff Limited (SDS) to carry out this work. The Contractor's responsibility was to liaise with SDS in order to review the design for buildability and support SDS in obtaining Temporary Traffic Regulation Orders during the Pre-Construction phase thereafter construct and install the Works all of which is described in Schedule One Scope of Works and Services.

1.4. In the case of the two example Work Sections St Andrew's Square (1CWSI-03-01) and Haymarket Terrace to Manor Place (1DWSI-01-01) the Contractor was expected to receive the design on the 02nd April 07 and the designs for both Work Sections were not received until **January 08**. Consequently the Contractor was not given the opportunity to review the design for buildability.

Comment [T1]: Was this checked?
This would not have been at IFC status

1.5. **tie** agreed with the Contractor's initiative to commence some construction at St Andrew's Square under the Risk and Trade Off process described as RaT 1C for the construction of the BT ducts. However, this has proved to be abortive in a number of areas because no cognisance was taken of the cellars when producing the Information for Construction (IFC), (in some

cases Information for Approval by the Statutory Undertakers) drawings even though the cellars were exposed when installing the BT ducts.

1.6. Upon commencement of the construction of the two Work Sections the following pertinent issues manifested themselves (which are explained in more detail hereafter in the document):

1.6.1 St Andrew's (1C-03-01) the design had taken no account of the cellars consequently the whole design had to be re-thought after a period of exploratory investigation to locate cellars and prove service routes which ultimately had to be located in the street as opposed to the footpath. The consequences of which were the Contractor had to revise his method of operation; additional works such as side entry manholes which revised the traffic management and sequence of operations; various artificial obstructions and adverse physical conditions.

1.6.2 Haymarket Terrace to Manor Place (1D-01-01) it was intimated that the design was to be revised immediately upon the commencement of construction due to the need to revise the alignment of the Developed Kinematic Envelope (DKE) for the tram which impacted on the available area for services and Traffic Management (TM). The fact that no proper liaison had been taken with the other stake holders meant that a taxi rank had to remain open and caused additional phases of work, which also revised the TM additional works such as side entry manholes which revised the traffic management and sequence of operations; various artificial obstructions and adverse physical conditions. All of which has lead to the Contractor revising his method of operation.



1.7 The Contractor has assessed that as a result of the above issues the Work Sections have been impacted by x weeks but this has been mitigated by y weeks due to the Contractor employing additional resources and using his best endeavours to mitigate the delay to the Programme¹. However the Contractor's regular progress of the Works has been delayed and disrupted and the Contractor considers pursuant to the Agreement clauses (hereafter described in the contractual section ???) that issues which **tie's** responsibility there is an entailment to additional payment of £ ??? (hereafter described in the Quantum Section 6)

DRAFT

¹ Refer section ??? on Time Impact



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