

### Infrastructure Services

MUDFA Project Western Harbour Leith Docks Edinburgh EH6 SQF Telephone 0131 Facsimile 0131

www.atfredmcalpineplc.com

Ref: AMIS/tie/letter/KAG/Projects/833

11th March 2008

Mr. Graeme Barclay
tie MUDFA Utilities Construction Director
tie Limited.
Citypoint,
1st Floor,
65 Haymarket Terrace,
Edinburgh.
EH12 5H0

Dear Graeme,

Subject: MUDFA Alfred McAlpine Infrastructure Services (AMIS) -- Contract A150

Report and Recommendation: Construction Services

Schedule Four Rates & Prices: Application of Clauses 46 and 50

Further to the commitment given at the Commercial Meeting held on 25<sup>th</sup> February 2008, with Messrs Bell, Barclay, Casserly, Hudson, Malkin and Gourlay in attendance please find two (2) copies of the above noted submission, all in accordance with the agreed deadline.

Please note the Minutes of the Meeting remain outstanding, although action progressed.

AMIS MUDFA's concern with the suitability and integrity of the Schedule Four Rates and Prices was first formally notified under cover of letter Ref; AMIS/tie/letter/KAG/Projects/155 dated 3<sup>rd</sup> April 2007, following discussions held on the 28<sup>th</sup> March 2007.

In the intervening period (fifty weeks) the concerns expressed in the first instance by AMIS MUDFA have proved to be well founded and been further compounded, indeed exacerbated by issues emerging through the management, by the Limited, as Employer, Project Sponsor and Project Manager of the emerging MUDFA Works, together with the IFC Utility Designs and Design Related Information, Stakeholder constraints and Traffic Management dependencies.

The Schedule Four Rates and Prices were predicated upon (i) the successful completion; and / or (ii) adherence to, the following key and critical requirements established as the agreed baseline for management and administration of the MUDFA terms and conditions:-

- The Contract drawings and the associated linear meterage of diversions set out in the Schedule Four Quantities (24,662 Metres);
- The Prime Cost and Provisional Sums which establish the maximum additional diversions over and above item 1 above (18,932 Metres);
- The reduction and mitigation of this total (43,594 Metres) through the Value Engineering Incentive;



Alfred McAlpine Infrastructure Services Limited, Registered in England No. 00728599 Registered Office: Kinnaird House, 1 Pall Mall East, London SW3Y 5AZ



### Infrastructure Services

11<sup>th</sup> March 2008 Page 2 of 3

Ref: AMIS/tie/letter/KAG/Projects/833

- 4. The Contract Programme, Schedule Eight, which defines the sequence, modus operandi and operational premis of the MUDFA Works as challenged by the Limited and discussed at length throughout the Tender and CARP process leading to Contract award;
- 5. The MUDFA terms and conditions which define the Stakeholders Imposed constraints and as now defined through the late delivery of Schedule 13 Requirements;
- The completion of all Enabling Works and Advance Construction Works necessitated to support MUDFA Construction Services schedule adherence, by no later than 31<sup>st</sup> March 2007;
- The completion of the IFC Designs and Design related Information by no later than 21<sup>st</sup> December 20•6;
- The preparation of robust and accurate IFC Designs and Design related Information to support both the MUDFA Contractor's Contract Objectives and schedule adherence under the Schedule Eight Programme;
- 9. The completion of all Traffic Management Designs and Temporary Traffic Regulation Orders (TTRO's) by 9<sup>th</sup> January 2007 by SDS Provider with input only from AMIS MUDFA; and
- Administration of the MUDFA Contract, including the associated risks, in strict and full compliance with its provisions, terms and conditions by tie Limited as Employer, Project Sponsor and Project Manager.

It is a matter of record that the above noted items were not administered, managed and/or completed in accordance with the MUDFA terms and conditions.

As a consequence the fundamental basis of the Schedule Four Rates and Prices have been compromised, where the productivities (i.e. output), cost base and management support contemplated have either not been met, in the case of output or exceeded in the case of base cost and increased management support to support schedule adherence under Revision 06 of the approved Programme.

Indeed the above noted issues will, if not comprehensively and proactively managed by tie Limited, result in Revision 06 of the Programme being comprimised, rendering it unsustainable in the immediate future.

A synopsis of the submission, prepared on a critique of the above noted items, is attached herewith under Appendix 'A'.

As a consequence the Schedule Four Rates and Prices need to be reviewed by tie Limited, in accordance with the provisions of Clauses 46 and 50 of the MUDFA terms and conditions.



Affred McAlpine Infrastructure Services Limited, Registered in England No. 00728599 Registered Office: Kinnaird House, 1 Pall Mall East, London SW1Y 5AZ



## Infrastructure Services

11<sup>th</sup> March 2008 Page 3 of 3

Ref: AMIS/tie/letter/KAG/Projects/833

Should you require any additional information, or clarification of any point, please do not hesitate to contact the under-signed or alternatively Messrs Gourlay or Lowe.

Yours sincerely,

For and on behalf of Alfred McAlpine Infrastructure Services Ltd



Andrew Malkin MUDFA AMIS Project Director

Copies:-

tie Project Team John Casserly Steven Bell MUDFA Project Team Keith Gourlay Taryne Lowe Steve Hudson

Attached/... Report and Recommendation to tie Limited for the Application of Clauses 46

and 50 for Construction Services (Two Copies)

Appendix 'A' (Six Pages)

1 x CD (MUDFA - Application of Clause 46 & 50)



ID	Baseline MUDFA Terms and Conditions	Change to the Baseline Terms and Conditions
		Schedule Four contains 24,662 metres of multi-utility diversions, excluding any additional / emerging diversions necessary, all as instructed under the Prime Cost and Provisional Sums / Work Order protocol, determined at 18,932 metres.
2	Diversionary Quantities Prime Cost and Provisional Sums	From an analysis of the appropriate Prime Cost and Provisional Sums categories it can be determined that the maximum total quantity of diversionary works required under the MUDFA Contract would be 43,594 metres, the equivalent of 2 metres of utility being diverted along every metre of the tram route. The Anticipated Final Account (AFA) quantities are as follows:-
		<ul> <li>tie Limited Imposed AFA instructed 59,125 metres of utility diversions; an increase of 36% over the maximum quantity contemplated under the Contract, the equivalent of 2.7 metres of utility being diverted along every metre of the tram route;</li> </ul>
		the AMIS MUDFA assessed AFA determined 66,770 metres of utility diversions; an increase of 53% over the maximum quantity contemplated under the Contract, the equivalent of 3.1 metres of utility being diverted along every metre of the tram route;
		<ul> <li>based on a representative sample of the works undertaken to date, extrapolated across the AFA determines 66,634 metres of utility diversions; a quantity not dissimilar to the AMIS MUDFA AFA.</li> </ul>
		The impact of this growth, over and above that contemplated under the Contract renders the Schedule Four Rates and Prices untenable in output, cost base and schedule adherence.
		Furthermore, as a consequence, Revision 06 of the tie Limited and Stakeholder constrained Programme is compromised as the sequence, duration and modus operandi is predicated upon the tie Limited Imposed AFA diversionary quantities, with limited provision for the Prime Cost and Provisional Sum expenditure and inadequacy of utility designs in lateness and accuracy terms.
3	Value Engineering Incentive	The MUDFA terms and conditions contempiate that the quantities reflected in item 2 above would be reduced as a consequence of the Value Engineering Incentive defined under Clause 48 of the MUDFA terms and conditions and more recently by the agreed amendment, the MUDFA Contractor Incentivisation Proposal.
		This proposal has been frustrated by IFC Design and Design related Information not being available in accordance with Revision 06 of the tie Limited and Stakeholder Constrained Programme; there are currently circa 51% of IFC Designs late, (352 in total) when determined against the agreed Programme.
		By way of further illustration, no IFC Designs and Design related Information (Works Order Requirements, Clause 8.9) have been received for Constitution Street, Worksite 1A WSi 001/001 to date. These Works commence on site in fourteen (14) working days.
		The consequence of the foregoing renders any the MUDFA Contractors Incentivisation Proposal untenable, notwithstanding the consequential impact on schedule adherence and outturn cost to tie Limited.

Appendix 'A': Report and Recommendation to tie Limited for the Application of Clauses 46 and 50 for MUDFA Construction Services

<b>ID</b>	Baseline MUDFA Terms and Conditions  Contract Programme - Schedule Eight; Construction Services modus operandi	Change to the Baseline Terms and Conditions		
4		The Schedule Eight Programme, considered in conjunction with the maximum diversionary quantity of 43,594 metres represents the fundamental basis of the Schedule Fourrates and prices and not the current growth experienced to date.		
"No works shall be undertaken between Haymarket at Magdala Crescent to Leith Walk Junction of London Refollowing dates:  Festival 6th August 2006 until 2rd September 2006 Festival 5th August 2007 until 2rd September 2007 Christmas 3rd December 2006 until 2rd January 2007; and Christmas 2rd December 2007 until 2rd January 2008"  The level of Stakeholder imposed restrictions and associated dependencies on the tie Limited and Stakeholde at Revision 06 are considerably in excess of those contemplated in the MUDFA terms and conditions, redisruption and dislocation to the Programme arising as a consequence of Pre-Construction Services.  This level of increased restriction has had a direct and consequential impact on the modus operandi, sequence the Schedule Four Rates and Prices; the impact of the excessive restrictions imposed by Lothian Bussiakeholder in the Edinburgh Tram project has also had a major impact on the modus operandi, sequence, or		Festival 6 <sup>th</sup> August 2006 until 3 <sup>rd</sup> September 2006 Festival 5 <sup>th</sup> August 2007 until 2 <sup>nd</sup> September 2007 Christmas 3 <sup>rd</sup> December 2006 until 2 <sup>nd</sup> January 2007; and Christmas 2 <sup>nd</sup> December 2007 until 2 <sup>nd</sup> January 2008"  The level of Stakeholder imposed restrictions and associated dependencies on the tie Limited and Stakeholder Constrained Programme at Revision 06 are considerably in excess of those contemplated in the MUDFA terms and conditions, notwithstanding the delay,		
6	Enabling and Advance Construction Works	It was contemplated that the Advance Construction and Enabling Works, necessitated by the MUDFA Works would be completed by the 31 <sup>st</sup> March 2007, following completion of the IFC Design and Design Related Information by 21 <sup>st</sup> December 2006 and the Traffic Management Designs and Temporary Traffic Regulation Orders (TTRO's) being completed by 9 <sup>th</sup> January 2007. Adherence to this schedule would have facilitated the procurement of these works, by tie Limited, currently under the Work Order process, to support schedule adherence of Construction Services under the Schedule Eight Programme.  It is a matter •F record the Advance Construction and Enabling Works are being procured on the basis of emerging, late and incorrect IFC designs and CVI's; letter Ref; AMIS/tie/letter/KAG/Projects/823 of 6 <sup>th</sup> March 2008 illustrates our concerns in this respect, where the IFC designs for Constitution Street had not been issued in full, or represented the full extent of the required works sixteen days in advance of the MUDFA Works commencing; notwithstanding the ongoing non-compliance by tie Limited of Clause 8, Work Ordering.  Similar concerns were expressed by AMIS MUDFA in respect of the Advance Construction and Enabling Works for Shandwick Place; letter Ref; AMIS/tie/letter/KAG/Projects/823 dated 8 <sup>th</sup> March 2008 refers. The overall impact of the foregoing could, if not addressed by tie Limited, could result in Advance Construction and Enabling Works being undertaken contemporaneously, not a situation contemplated in the Schedule Four Rates and Prices or Revision 06 of the Programme.		

Appendix 'A': Report and Recommendation to tie Limited for the Application of Clauses 46 and 50 for MUDFA Construction Services

ID	Baseline MUDFA Terms and Conditions  Completion of IFC Designs and Design Related Information	Change to the Baseline Terms and Conditions			
7		The MUDFA terms and conditions contemplate the IFC Designs and Design Related Information would be complete in the following sequence and timescales:-  Deliverable Preliminary Design Complete Preliminary Design Preliminary Design Prove Preliminary Design Preli			
		By way of further illustration, no IFC Designs and Design related Information (Works Order Requirements) have been received for Constitution Street, Worksite 1A WSi 001/001 to date. Works commence on site in fourteen (14) working days, rendering the Work Order protocol, advance mobilisation, securing resources et al. in a manner, sequence and commercial framework consistent with the Schedule Four baseline untenable.  This is a similar position to previous Work Orders on the project, i.e. Section 6 IFC's were scheduled for 20 <sup>th</sup> August 2007 and to date no drawings have been received.  This restriction and series of limitations were not contemplated on preparation of the Schedule Four Rates and Prices and has impacted on output achieved and costs incurred to date; given the ongoing delay and the lack of any discernable improvement throughout the Contract period to date, it will continue to impact on the MUDFA Contractor's outputs and cost base until remedied on a sustainable basis.			
8	Availability of Robust and accurate IFC Designs and Design related Information has been the subject of extensive correspondence, Technical Query and challenge by AMIS MUDFA; please refer to Appendices 1, 2, 3 and 4 of the attached Report and Recommendation, specifically the Exemplar challenge and review of December 2006 and January 2007.  The fundamental principle adopted by AMIS MUDFA in the preparation of the Schedule Four Rates and Prices was the IFC Designs and Design related Information would be accurate, robust, fully configured, dependency considered/validated, co-ordinated and prepared / completed by SDS Provider, under the management and direction of the Limited.  This process would be undertaken in accordance with the sequence and timetable deteiled in item 7 above, fully in compliance with and overall recognition of the contract objectives which conform across both the MUDFA Contract terms and conditions and those reflected within the "Provision of System Design Services relating to the Edinburgh Tram Project".				

# Appendix 'A': Report and Recommendation to tie Limited for the Application of Clauses 46 and 50 for MUDFA Construction Services

ID	Baseline MUDFA Terms and Conditions	Change to the Baseline Terms and Conditions
8	Availability of Robust and accurate IFC Designs and Design Related Information (Continued)	The following areas provide a synopsis of the key and critical objectives consistent and compatible across the tie Limitest SDS Provider contractual framework and the tie Limited: Alfred McAlpine contractual arrangement, i.e. the areas upon which AMIS relied upon the integrity of the Design when preparing their Schedule Four Rates and Prices.  These obligations determine that the SDS Provider shall provide an IFC Design and Design related information that has been prepared:-
	(Gonanaea)	
		To a reasonable level of professional skill, care and diligence;
		In accordance with Good Industry Practice
		Ensuring best value;
		Take due and proper account of all risks, including those associated with existing ground conditions; and
		Safeguarding efficiency in obtaining all necessary consents.
		In the considered and professional opinion of AMIS MUDFA the ability of the MUDFA Contractor to achieve and exceed these conforming Contract objectives has been significantly curtailed, obstructed and on occasion wholly frustrated by the inaccurate, inadequate, IFC Design and Design related Information issued by the Limited, ostensibly under Clause 8.
		To date and according to SDS Provider the requirements stipulated as being provided under the "Provision of System Design Services relating to the Edinburgh Tram Project" Agreement has not been provided, despite several requests from AMIS MUDFA.
		This has been further curtailed, obstructed and wholly frustrated by a preponderance of site input where, instead of focussing on outputs, productivity and the efficient allocation of internal and subcontract resources our Delivery and Front Line Managers have been seeking to mitigate and address the absence of fully configured and co-ordinated IFC Designs in the form of TQ's resolution and mitigation.
		In summary a total number of 426 Technical Queries have been raised up to and including 29 <sup>th</sup> February 2008 for circa 3,190 metres of utility diversion areas.
		For every 100 metres progressed on each Worksite thirteen (13) design and/or technical specification related Technical Queries (TQ's) have been issued; this ratio will increase as TQ's are raised on the balance of utility diversion areas where physical Construction Services activity has not commenced. The average time taken for SDS Provider / tie Limited to respond is currently in excess of 20 days, an unacceptable period.
		A Confirmation of Verbal Instruction (CVI) / Record Sheet process and procedure has been implemented by AMIS MUDFA to capture change events and progress activities on schedule. To date a total number of 583 CVI/Record Sheets have been raised predominantly by AMIS MUDFA, this equates to eighteen (18) changes for every 100 metres of Work Site progressed.
		The consolidated impact of these issues represents in the region of thirty one (31) IFC Design / Technical Specification issues for every 100 metres of Work Site progressed, the equivalent of one (1) issue every 3.2 metres of diversion area.

Appendix 'A': Report and Recommendation to tie Limited for the Application of Clauses 46 and 50 for MUDFA Construction Services

ID	Baseline MUDFA Terms and Conditions	Change to the Baseline Terms and Conditions		
8	Availability of Robust and accurate IFC Designs and Design Related Information (Continued)	Had this magnitude of change and technical clarification been contemplated by the parties the MUDFA terms and conditions would have incorporated the following administrative aspects.  The exclusion of these processes and procedures from the drafting of the MUDFA terms and conditions, demonstrates beyond all reasonable doubt, that the magnitude of change and the consequential impact on schedule adherence, cost impact et all were not considered a risk by tie Limited, particularly when the very same processes and procedures, as drafted and introduced by the MUDFA Contractor have become instrumental and pivotal to the successful day to day management of the MUDFA Works.  The foregoing has had a material impact on the sustainability of MUDFA Contractor's Schedule Four Rates and Prices, with additional costs being incurred and absorbed, together with delay, disruption and dislocation to schedule adherence under Revision 06 of the tie Limited and Stakeholder Constrained Programme.		
9	Traffic Management Designs and Temporary Traffic Regulation Orders	Work Section Haymarket to Newhaven Road Haymarket Corridor Roseburn Junction to Granton Square Roseburn Junction to Gogar Gogar Depot Gogar to Airport  The Schedule Four Rates and Prices has accordance with Revision 06 of the tie increasing when measured against the M The Traffic Management Designs and T within a three to four week window in ad and Stakeholder Constrained Programme This restriction and series of limitations won output achieved to date and costs income the Contract period to date, it will continue.  This impact, when considered against the Limited and Stakeholder Constrained Programme This impact, when considered against the Limited and Stakeholder Constrained Programme This impact, when considered against the Limited and Stakeholder Constrained Programme	TM Design Complete 23 <sup>rd</sup> October 2006 4 <sup>th</sup> October 2006 30 <sup>th</sup> October 2006 Not Applicable 6 <sup>th</sup> November 2006 ve been frustrated by t Limited and Stakeholde IUDFA terms and condi	on preparation of the Schedule Four Rates and Prices and has impacted on ongoing delay and the lack of any discernable improvement throughout

# Appendix 'A'; Report and Recommendation to tie Limited for the Application of Clauses 46 and 50 for MUDFA Construction Services

ID	Baseline MUDFA Terms and Conditions	Change to the Baseline Terms and Conditions
10	Administration of the MUDFA Terms and Conditions	Up to and including 23 <sup>rd</sup> February 2008 a total number of 28 Work Order Estimates have been completed by AMIS MUDFA, of these twenty seven (27) Work Order Proposals have been submitted for the Limited approval. The corresponding value of Work Order Proposal Estimates is circa £19m, of which, circa £1m has not yet been submitted to the Limited, with only circa £6m having received a corresponding tie Limited Work Order Confirmation Notice.
		The remainder of Work Order Proposals currently being progressed on site, without a corresponding tie Limited Work Order Confirmation Notice in contravention of Clause 8.8, is circa £12m. This demonstrates a fundamental failure by tie Limited to manage and administer the terms and conditions of the MUDFA Agreement.
		AMIS MUDFA is therefore exposed to a major commercial risk in the event tie Limited retrospectively seek to amend the aforementioned terms, notes, assumptions and exclusions.
		Following formal notification of the issue by AMIS MUDFA it was demonstrated, from contemporaneous records, that tie Limited had failed to discharge their obligations in respect of Clause 8, specifically Clause 8.9, Work Order Requirements, against a balanced scorecard of 70%+, i.e. only 30% compliant.
		This deficiency in the provision of key and critical information curtailed, obstructed and wholly frustrated the Worksite operations where our Delivery Managers and Front Line Managers, instead of focussing on outputs, productivity and the efficient allocation of internal and subcontract resources, have been seeking to mitigate and address the absence of fully configured and co-ordinated IFC Designs and Design related Information.
		Furthermore the Notice of Change and, Change Order protocol defined under Clause 46, has not been correctly administered by tie Limited.