



(1) TIE LIMITED

- and -

(2) ALFRED McALPINE INFRASTRUCTURE SERVICES LIMITED

**MULTI-UTILITIES
DIVERSION FRAMEWORK
AGREEMENT**

relating to

the Edinburgh Tram Network

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AGREEMENT

BETWEEN

- (1) **TIE LIMITED** a company incorporated under the Companies Act with registration number SC230949 and having its registered office at City Chambers, High Street, Edinburgh, Midlothian, EH1 1YJ ("**tie**") which expression shall include its successors and permitted assignees; and
- (2) **Alfred McAlpine Infrastructure Services Limited**, a company incorporated under the Companies Act with registration number 00728599 and having its registered office at Kinnaird House, 1 Pall Mall East, London, SW1Y 5AZ ("**MUDFA Contractor**") which expression shall include its personal representatives, successors and permitted assignees.

WHEREAS

- A. **tie** requires a contractor to carry out and complete the MUDFA Works (as hereinafter defined) in respect of the Edinburgh Tram Network (as hereinafter defined).
- B. Pursuant to a notice published in the Official Journal of the European Union on 30 September 2005 with reference 2005 S 189-186063, **tie** invited expressions of interest from appropriately qualified parties to carry out and complete the MUDFA Works.
- C. By a competitive procurement process conducted in accordance with **tie's** internal procedures and in accordance with law, **tie** has selected the MUDFA Contractor to carry out and complete the MUDFA Works in accordance with this Agreement.
- D. **tie** has issued a Letter of Appointment (as hereinafter defined) in response to the MUDFA Contractor's Formal Offer (as hereinafter defined).

NOW IT IS HEREBY AGREED AS FOLLOWS:

1. DEFINITIONS AND INTERPRETATION

- 1.1 Unless otherwise defined in this Clause 1.1, in this Agreement (including the recitals and the Schedules), save as the context otherwise requires, the following words and expressions shall have the meanings hereby ascribed to them:

"**Access Permit**" has the meaning given in paragraph 3.4.1 of Schedule 2 (*Technical Requirements*);

"Access Permit Form" has the meaning given in paragraph 3.4.2 of Schedule 2 (*Technical Requirements*);

"Additional Insurance" has the meaning given in Clause 55.19;

"Advance Works" means the works which the MUDFA Contractor may be required by **tie** to carry out in accordance with paragraph 2.50 of Schedule 1 (*Scope of Works and Services*);

"Affected Party" means a Party that is unable to comply with all or a material part of its obligations under this Agreement as a direct result of a Force Majeure Event;

"Affiliate" means in relation to any organisation:

- (a) any person having any shares in or membership of that organisation, whether directly, through nominees or through shares in or membership of any other person; and
- (b) any person in which that organisation holds shares or of which that organisation is a member whether directly, through nominees or through shares in or membership of any other person;

"Agreement" means Clauses 1 to 84 (inclusive) together with the Schedules, the Formal Offer and the Letter of Appointment all as may be amended from time to time in accordance with this Agreement;

"Anticipated Final Account" or **"AFA"** has the meaning given in Clause 48.3;

"Apparatus" means the BT Apparatus, the Easynet Apparatus, the NTL Apparatus, the Scottish Water Apparatus, the Scotland Gas Networks Apparatus and the Thus Apparatus, and any other equipment, apparatus or other devices (above or below ground and any structure for the lodging within that structure of equipment or apparatus or any structure required to maintain or afford access) constructed, installed or moved by the MUDFA Contractor or otherwise involved in the carrying out of the MUDFA Works;

"Approval Bodies" means any Relevant Authorities, Utilities, planning authorities, roads authorities, BAA, Network Rail and any other parties who are to issue Consents which may be required for the construction and completion of the MUDFA Works;

"**BAA**" means BAA plc, a company incorporated under the Companies Act with registration number 1970855 and having its registered office at 130 Wilton Road, London, SW1V 1LQ which expression shall include its successors in title and assignees and any of its associated or subsidiary companies with interests at Edinburgh International Airport;

"**Background Information**" means all and any materials, documents, drawings, plans or other information in paper, electronic or any other form, relating in any way to this Agreement and the Tram Legislation (and the parliamentary process) and made available to the MUDFA Contractor by **tie**, CEC and/or any of their respective members, officers, agents and/or advisers during the procurement competition relative to this Agreement;

"**Bills of Quantities**" means the priced and completed bills of quantities (including preliminaries) set out in Schedule 4 (*Bills of Quantities*);

"**BT**" means British Telecommunications PLC, a company incorporated under the Companies Act with registered number 1800000 and having its registered office at 81 Newgate Street, London EC1A 7AJ;

"**BT Apparatus**" means electronic communications apparatus as defined in paragraph 1(1) of Schedule 2 (the Electronic Communications Code) of the Telecommunications Act 1984 (as amended or extended) belonging to, used by or maintained by BT above or below ground and for the avoidance of doubt includes any structure for the lodging within that structure of equipment or apparatus or any structure required to maintain or afford access whether or not forming part of the MUDFA Works;

"**BT Specification LN550 (Issue 6)**" means the specification of the same name current at the Effective Date;

"**BT Works**" means any works to be carried out by the MUDFA Contractor in respect of BT Apparatus which are described in Part 4 of Schedule 1 (*Scope of Works and Services*);

"**Business Day**" means any day other than a Saturday, Sunday or a day which is a public holiday recognised by CEC;

"**CAA**" means the Civil Aviation Authority;

"CEC" means the City of Edinburgh Council;

"CDM Regulations" or "CDM" means the Construction (Design and Management) Regulations 1994;

"Certificate of Substantial Completion" means any certificate issued under Clause 40 (*Notification of Substantial Completion*);

"Change Control Register" means the change control register to be maintained by the MUDFA Contractor in accordance with Clause 46.19;

"Change in Control" means any sale or disposal of any legal, beneficial or equitable interest in more than 29% of the share capital of a corporation to a single person or group of people acting in concert or the control over the exercise of voting rights in a corporation or the control over the right to appoint or remove directors of a corporation;

"Change in Law" means the coming into effect after the date of 42 days prior to the tender return date of:

- (a) Legislation, excluding any Legislation which on the date of this Agreement has been published:
 - (i) in a draft Bill as part of a Scottish Executive/Scottish Parliament or United Kingdom Government consultation paper;
 - (ii) in a Bill;
 - (iii) in draft subordinate Legislation within the meaning of section 21(1) of the Interpretation Act 1978; or
 - (iv) as a proposal in the Official Journal of the European Union;
- (b) any Guidance, (excluding Guidance which on the date of 42 days prior to the tender return date has been published (in draft or otherwise) in any Scottish Executive, Scottish Parliament or United Kingdom Government consultation paper (and/or on any Scottish Executive, Scottish Parliament or United Kingdom Government internet site)); or
- (c) any applicable judgement of a relevant court of law which changes a binding precedent;

"Coal Authority" means a body established under the Coal Industry Act 1994 and having its principal office at 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG;

"Code" means the Scottish Ministers' Code of Practice on the Discharge of Functions by Public Authorities under the Freedom of Information (Scotland) Act 2002 as the same may be amended, varied or replaced from time to time;

"Communications Plan" means the plan to be prepared by the MUDFA Contractor in accordance with paragraph 2.45 of Schedule 1 (*Scope of Works and Services*);

"Confidential Information" means any information which has been designated as confidential by either Party in writing that ought to be considered as confidential (however it is conveyed or on whatever media it is stored) including information which relates to the business, affairs, properties, assets, trading process, goods, services, developments, trade secrets, Intellectual Property Rights, know-how, personnel of either party, all personal data and sensitive personal data within the meaning of the Data Protection Act 1998;

"Conflict of Interest" means a situation where a fair minded and informed observer would conclude that the MUDFA Contractor's ability to carry out the MUDFA Works, and advise and/or act for **tie** properly and impartially in accordance with this Agreement is inhibited because of:

- (a) the best advice not being given to **tie** by the MUDFA Contractor; and/or
- (b) advice which is given by the MUDFA Contractor, being different to that which would have been given if the MUDFA Contractor had only been acting for **tie**;

which results in an adverse outcome for **tie**;

"Consents" means without limitation all permissions, consents, approvals, non-objections, certificates, permits, licences, agreements, statutory agreements and authorisations, planning permissions, listed building consents, approval of reserved matters, conservation areas consent, temporary traffic regulation orders, wayleaves, building fixing agreements, Utility Permits to Work, Access Permits, Permits to Work, building control approvals, building warrants, and all other necessary consents and agreements from the Approval Bodies, or any Relevant Authority, any other relevant third parties whether required by Law or the Tram Legislation or under

contract provided that, subject to Clause 9.5, Consents shall not include any Land Consents;

"Construction Panel" has the meaning given to it in paragraph 19.1 of Schedule 9 (*Dispute Resolution Procedure*);

"Construction Phase" means the period shown in the Construction Programme during which the MUDFA Contractor shall carry out and complete the Construction Services and the Construction Works;

"Construction Programme" means the construction programme set out in Part B of Schedule 8 (*Programme*) as developed and extended in accordance with the terms of this Agreement;

"Construction Services" means the works and services to be provided by the MUDFA Contractor as described in Part 3 of Schedule 1 (*Scope of Works and Services*);

"Construction Works" means the BT Works, the Easynet Works, the NTL Works, the Scotland Gas Networks Works, the Scottish Water Works and the Thus Works and any other works to be carried out by the MUDFA Contractor in terms of this Agreement;

"Contract Price" means the sum to be ascertained and paid in accordance with the provisions hereinafter contained for the construction and completion of the MUDFA Works in accordance with the Agreement and shall include the Defects Correction Period;

"Date For Completion" means the date for completion of the whole of the MUDFA Works stated in the Construction Programme as may be amended or extended from time to time in accordance with this Agreement;

"DDA" means the Disability Discrimination Act 1995;

"Defects Correction Certificate" means a certificate issued under Clause 44.1;

"Defects Correction Period" means the period of five years calculated from the date on which the MUDFA Contractor becomes entitled to the last Certificate of Substantial Completion for the MUDFA Works or part thereof or the date of termination of this Agreement (whichever is earlier);

"Deliverables" means all documents, information, reports, diagrams, records, method statements, risk assessments, manuals, schedules, databases, photographs, formulae, plans, designs, specifications, drawings, as built drawings, details, calculations, models and simulations, the outputs and reports based on any models, programmes and all other material created and/or provided by the MUDFA Contractor (and/or any MUDFA Contractor Parties or any other third party) in the performance of the MUDFA Works;

"Design Manual" means the tram design manual issued by CEC as may be amended from time to time;

"Discriminatory Change in Law" means a Change in Law, the terms of which apply expressly to:

- (a) the Edinburgh Tram Network; and/or
- (b) the MUDFA Contractor and not to other persons;

"Dispute" means any dispute, difference or unresolved claim between the Parties in connection with or arising from this Agreement;

"Dispute Resolution Procedure" means the procedure set out in Schedule 9 (*Dispute Resolution Procedure*);

"Drawings" means the drawings included in Schedule 4 (*Bills of Quantities*);

"Easynet" means Easynet Telecommunications Limited, a company incorporated under the Companies Act with registered number 02883980 and having its registered office at 44-46 Whitfield Street, London W1T 2RJ;

"Easynet Apparatus" means any equipment, apparatus or other devices belonging to, used by or maintained by Easynet above or below ground and includes any structure for the lodging within that structure of equipment or apparatus or any structure required to maintain or afford access whether or not forming part of the MUDFA Works;

"Easynet Works" means any works to be carried out by the MUDFA Contractor in respect of Easynet Apparatus which are described in Part 4 of Schedule 1 (*Scope of Works and Services*);

"Edinburgh Tram Network" means Line One and Line Two of the Edinburgh Tram Network as described in the Tram Legislation, and as may be amended from time to time together with any modification, line extension, spur, interconnection, and any additional line;

"Effective Date" means the last date of execution of this Agreement;

"Enabling Works" means the works which the MUDFA Contractor may be required by **tie** to carry out in accordance with paragraph 2.51 of Schedule 1 (*Scope of Works and Services*);

"Environmental Information Regulations" means the Environmental Information (Scotland) Regulations 2004 Scottish SI 2004/520;

"Environmental Statement" means the environmental statements supporting each of the Tram Legislation;

"Estimate" means the estimate to be provided by the MUDFA Contractor pursuant to 46.4;

"Final Account" or **"FA"** means the final account as agreed by **tie** in accordance with Clause 49.6;

"Final Account Certificate" shall have the meaning given in Clause 49.6;

"Final Buildability Report" means the report to be prepared by the MUDFA Contractor and submitted for approval by **tie** in accordance with paragraph 2.33 of Schedule 1 (*Scope of Works and Services*);

"Financial Panel" has the meaning given to it in paragraph 19.1 of Schedule 9 (*Dispute Resolution Procedure*);

"FOISA" means the Freedom of Information (Scotland) Act 2002 and any subordinate legislation made under this Act from time to time together with any guidance and/or codes of practice issued by the Scottish Information Commissioner in relation to such legislation;

"Force Majeure Event" means the occurrence after the Effective Date of:

- (a) war, civil war, armed conflict or terrorism; or

- (b) nuclear, chemical or biological contamination unless the source of the contamination is the result of actions by the MUDFA Contractor or any MUDFA Contractor Parties; or
- (c) pressure waves caused by devices travelling at supersonic speeds; or
- (d) a natural disaster.

"Formal Offer" means the tender submission and CARP submission for the MUDFA Works issued by the MUDFA Contractor and dated 1 June 2006 and 4 August 2006 respectively;

"Forth Ports" means Forth Ports PLC a company incorporated under the Companies Acts with registered number SC134741 and having its registered office at 1 Prince of Wales Dock, Leith, Edinburgh EH6 7DX;

"Forth Ports Site" means those areas of ground in the City of Edinburgh identified in the parliamentary drawings numbered 6 to 12 inclusive as annexed to the Edinburgh Tram (Line One) Act 2006 as either limits of land to be acquired or used or limits of deviation and which are as at the Effective Date within the ownership of Forth Ports;

"General Change in Law" means a Change in Law which is not a Discriminatory Change in Law or a Specific Change in Law;

"Good Industry Practice" means using standards, practices, methods and procedures conforming to Law and exercising that degree of skill, care, diligence, prudence and foresight that would reasonably be expected from a large, reputable, professionally qualified, competent and skilled organisation experienced in carrying out activities of a similar nature, scope and complexity to those comprised in the MUDFA Works, and seeking in good faith to comply with its contractual obligations and all duties owed by it;

"Guidance" means any applicable guidance, direction or determination issued by any regulatory body with which **tie**, CEC any Utility and/or the MUDFA Contractor is bound to comply and shall include the BT Specification LN550 (Issue 6), and those parts of the Specification which contain guidance provided by the Utilities;

"Historic Scotland" means an agency within the Scottish Executive Education Department which was established in April 1991 and having its principal office at Longmere House, Salisbury Place, Edinburgh, EH9 1SH;

"Indemnified Parties" has the meaning given to it in Clause 56.1;

"Indirect Losses" means any damage, cost third party claim, expense or loss incurred by a Party to this Agreement as a consequence of a breach of this Agreement or a negligent act or omission which relates to loss of profits or revenue, loss of use, loss of production or output, interruption or loss of business or business opportunity or other consequential or indirect loss;

"Information" has the meaning given under section 73 of FOISA;

"Infraco" means the infrastructure provider to be appointed or appointed by **tie** in relation to the Edinburgh Tram Network;

"Initial Buildability Report" means the report to be prepared by the MUDFA Contractor in accordance with paragraph 2.11 of Schedule 1 (*Scope of Works and Services*);

"Insolvency Event" means any of the following events:

- (a) the MUDFA Contractor is unable to pay its debts as they fall due or is insolvent or admits (in writing) its inability to pay its debts as they fall due;
- (b) the MUDFA Contractor suspends for a period of two months making payments on all or any class of its debts or a moratorium is declared by the MUDFA Contractor in respect of its indebtedness;
- (c) the MUDFA Contractor ceases business or announces an intention to do so;
- (d) the following are entered into:
 - (i) a voluntary arrangement (other than a solvent one) for a composition of debts of the MUDFA Contractor;
 - (ii) a scheme of arrangement in respect of the MUDFA Contractor pursuant to the Insolvency Act 1986 or the Companies Act 1985; or

- (iii) a material composition or arrangement other than a solvent one with the MUDFA Contractor's creditors;
- (e) either of the following:
 - (i) the winding-up of the MUDFA Contractor (including passing a shareholders' resolution or the presentation of a petition by the MUDFA Contractor for the purpose of winding up the MUDFA Contractor); or
 - (ii) its administration (including where an application is made by the MUDFA Contractor, or petition is presented by the MUDFA Contractor for or any meeting of its directors or members resolves to make an application for an administration order);
- (f) an order for the winding-up or administration of the MUDFA Contractor is made;
- (g) any liquidator, judicial custodian, receiver, administrative receiver, administrator or the like is appointed in respect of the MUDFA Contractor or any material part of the MUDFA Contractor's assets;
- (h) possession is taken of, or any execution or other process (other than on the dependence or inhibition) is levied or enforced upon, any material part of the property (whether real or personal) of the MUDFA Contractor by or on behalf of any creditor or encumbrancer of the MUDFA Contractor; or
- (i) anything analogous to any of the events mentioned in paragraphs (a) to (h) above occurs in relation to the MUDFA Contractor under the law of any relevant jurisdiction;

"Intellectual Property Rights" means any rights in or to any patent, design right, utility model, trade mark, brand name, service mark, trade name, business name, logo, invention (whether registered or unregistered), domain name, semi-conductor right, topography right, software designs and/or other materials, source code, copyright, moral right, know-how, or rights in databases and any other rights in respect of any industrial or intellectual property, whether capable of being registered or not, including all rights to apply for any of the foregoing rights or for an extension, revival or renewal of any of the foregoing rights and any similar or analogous rights

to any of the above, whether arising or granted under the law of Scotland or of any other jurisdiction;

"Interim Certificate" shall have the meaning given in Clause 49.3;

"Internal Resolution Procedure" means the procedure described in paragraphs 10 and 11 of Schedule 9 (*Dispute Resolution Procedure*);

"Key Personnel" means those staff identified as key personnel of the MUDFA Contractor and/or any MUDFA Contractor Parties in Schedule 12 (*Key Personnel*);

"Land Consents" means all licences to occupy land, wayleaves, temporary traffic regulation orders and any other licences, permissions, rights of access and related consents in respect of land required for the MUDFA Works;

"Law" means:

- (a) any applicable Legislation;
- (b) any applicable Guidance; and
- (c) any applicable judgment of a relevant court of law which is a binding precedent,

in each case in force in Scotland;

"Legal Panel" has the meaning given to it in paragraph 19.1 of Schedule 9 (*Dispute Resolution Procedure*);

"Legislation" means any Act or instruments of the Scottish Parliament or the United Kingdom Parliament or subordinate legislation within the meaning of section 21(1) of the Interpretation Act 1978, any exercise of the Royal Prerogative, and any enforceable community right within the meaning of section 2 of the European Communities Act 1972 and any bye-laws of any local or other statutory authority;

"Letter of Appointment" means the letter from **tie** to the MUDFA Contractor dated 4 October 2006 accepting the MUDFA Contractor's Formal Offer;

"LOD" means the limits of deviation for the Edinburgh Tram Network as the same are shown as "LOD" in Schedule 16 (*Demarcation Drawings*);

"LLAU" means the limits of land to be temporarily acquired and used for the Edinburgh Tram Network as the same are shown as "LLAU" in Schedule 16 (*Demarcation Drawings*);

"Longstop Date" means 30 September 2008 as may be extended in accordance with this Agreement;

"MUDFA Contractor Change" means a change proposed by the MUDFA Contractor in accordance with Clause 46.17 and approved by ~~tie~~ in accordance with Clause 46 (*Changes*);

"MUDFA Contractor Default" means the events set out in Clause 57.1;

"MUDFA Contractor's Equipment" means all appliances or things of whatsoever nature required in or about the construction and completion of the MUDFA Works but does not include materials or other things intended to form or forming part of the MUDFA Works;

"MUDFA Contractor IPR" means:

- (a) all Intellectual Property Rights which the MUDFA Contractor can demonstrate by documentary evidence were already existing and owned by or licensed to the MUDFA Contractor prior to the Effective Date; and
- (b) any modifications or developments of any of the Intellectual Property Rights referred to in (a) above which are generic in nature and not specific to the performance of the MUDFA Works;

"MUDFA Contractor Party" means each and any of the MUDFA Contractor's employees, directors, officers, agents and contractors and its or their sub-contractors (of any tier) including Sub-Contractors and shall include its or their directors, officers and employees as they are involved in relation to the MUDFA Works and "MUDFA Contractor Parties" shall be construed accordingly;

"MUDFA Contractor's Representative" has the meaning given in Clause 15.2;

"MUDFA Works" means as the context requires, all or any of the works to be constructed and completed and/or services to be provided by the MUDFA Contractor in accordance with the Agreement. This shall include any Temporary Works, the Pre-Construction Services, the Construction Services, the Construction Works, the

Risk Services, the Stakeholder Services, the provision of accommodation and vehicle and/or all other obligations which the MUDFA Contractor is required to comply with and which are set out in this Agreement;

"Network Rail" means Network Rail Infrastructure Limited, a company incorporated under the Companies Act with registered number 2904587 and having its registered office at 40 Melton Street, London, NW1 2EE which shall include its successors in title and assignees;

"Notice of Adjudication" has the meaning given in paragraph 16 of Schedule 9 (*Dispute Resolution Procedure*);

"Notification" has the meaning given in paragraph 10.1 of Schedule 9 (*Dispute Resolution Procedure*);

"NTL" means NTL Group and NTL National on a joint and several basis;

"NTL Apparatus" means any equipment, apparatus or other devices belonging to or maintained by NTL Group or NTL National above or below ground and includes any structure for the lodging within that structure of equipment or apparatus or any structure required to maintain or afford access whether or not forming part of the MUDFA Works;

"NTL Works" any works to be carried out by the MUDFA Contractor in respect of NTL Apparatus which are described in Part 4 of Schedule 1 (*Scope of Works and Services*);

"NTL Group" means NTL Group Limited, a company incorporated under the Companies Act with registered number 02591237 and having its registered office at NTL House, Bartley Wood Business Park, Hampshire RG27 9UP;

"NTL National" means NTL National Networks Limited, a wholly owned subsidiary of NTL Group, incorporated under the Companies Act with registered number 05174655 and having its registered office at NTL House, Bartley Wood Business Park, Hampshire RG27 9UP;

"OCIP Insurances" means the insurances referred to in Clause 55.14, which shall be notified to the MUDFA Contractor from time to time;

"Open Book Basis" means the availability and disclosure (consistent with operation of Clause 68 (*Audit*) of all underlying data and calculations used by the MUDFA Contractor to create and justify costings and financial analysis presented to **tie**;

"Panels" has the meaning given to it in paragraph 19 of Schedule 9 (*Dispute Resolution Procedure*);

"Party" means a party to this Agreement and "Parties" shall be construed accordingly;

"Permits to Work" means the permits to work issued by **tie** in accordance with paragraph 3.5 of Schedule 2 (*Technical Requirements*);

"Position Paper" has the meaning given in paragraph 10.2 of Schedule 9 (*Dispute Resolution Procedure*);

"PPE" means personal protective equipment;

"Preambles" means the preambles set out within Schedule 4 (*Bills of Quantities*);

"Pre-Construction Completion Certificate" means the completion certificate to be issued by **tie** in accordance with Clause 8.3;

"Pre-Construction Deliverables" means the specific deliverables listed in paragraph 2.52 of Schedule 1 (*Scope of Works and Services*);

"Pre-Construction Phase" means the period shown in the Pre-Construction Programme during which the MUDFA Contractor shall carry out and complete the Pre-Construction Services and carry out any mobilisation activities;

"Pre-Construction Programme" means the pre-construction programme set out in Part A of Schedule 8 (*Programme*) as developed and extended in accordance with this Agreement;

"Pre-Construction Services" means the works and services to be provided by the MUDFA Contractor as described in Part 2 of Schedule 1 (*Scope of Works and Services*);

"Prime Cost (PC) Item" means an item in the Agreement which contains (either wholly or in part) a sum referred to as Prime Cost (PC) which will be used for the

carrying out of work or the supply of goods, materials or services for the MUDFA Works;

"Principal Contractor" has the meaning given to it in the CDM Regulations;

"Programme" means, as the context requires, either or both of the Pre-Construction Programme and the Construction Programme;

"Prohibited Act" means:

- (a) offering, giving or agreeing to give to **tie**, the Scottish Executive, the Scottish Ministers, CEC, or any **tie** Party or any other public body or any person owned or employed by any of them any gift or consideration of any kind as an inducement or reward:
 - (i) for doing or not doing (or for having done or not having done) any act in relation to the obtaining or performance of this Agreement; or
 - (ii) for showing or not showing favour or disfavour to any person in relation to this Agreement;
- (b) paying commission or agreeing to pay commission to any person in connection with the award of this Agreement;
- (c) committing any offence:
 - (i) under the Prevention of Corruption Acts 1889-1916 or section 68(2) of the Local Government (Scotland) Act 1973;
 - (ii) under any law creating offences in respect of fraudulent acts; or
 - (iii) at common law in respect of fraudulent acts in relation to this Agreement or any other relevant agreement with **tie**, the Scottish Executive, CEC or any other public body; or
- (d) defrauding or attempting to defraud or conspiring to defraud **tie**, CEC, the Scottish Executive, the Scottish Ministers or any other public body;

Any references within this Agreement to any "Prohibited Act" shall include acts outwith the United Kingdom and the references within the definition "Prohibited Act"

to UK legislation shall be deemed to be amended to refer to legislation in other jurisdictions outside of the United Kingdom;

"Project IPR" means all Intellectual Property Rights in the Deliverables and any other Intellectual Property Rights created in carrying out the MUDFA Works which are specific in nature to carrying out the MUDFA Works;

"Protestor Action" means any action taken or threatened to be taken by any person or persons protesting against the carrying out of any part of the MUDFA Works or the construction of the Edinburgh Tram Network (or any part thereof) which directly or indirectly affects the performance of the MUDFA Works including action or threatened action which results in:

- (a) increases in the cost of performing the MUDFA Works (including increased security costs); and/or
- (b) delays in performing the MUDFA Works;

other than any action directed at the MUDFA Contractor (or any MUDFA Contractor Party) that is not directed at the Edinburgh Tram Network;

"Provisional Sum" means a sum included and so designated in the Agreement as a specific contingency for the carrying out of work or the supply of goods, materials or services which may be used in whole or in part or not at all at the direction and discretion of **tie's** Representative and such work, and/or supply of goods, materials or services shall be valued in accordance with the rates and prices contained within Schedule 4 (*Bills of Quantities*);

"Qualifying Change in Law" means:

- (a) a Discriminatory Change in Law; and/or
- (b) a Specific Change in Law;

"Referral" has the meaning given in paragraph 27 of Schedule 9 (*Dispute Resolution Procedure*);

"Referring Party" has the meaning given in paragraph 16 of Schedule 9 (*Dispute Resolution Procedure*);

"Related Contract" has the meaning given in paragraph 55 of Schedule 9 (*Dispute Resolution Procedure*);

"Related Dispute" has the meaning given in paragraph 55 of Schedule 9 (*Dispute Resolution Procedure*);

"Relevant Authority" means any court with the relevant jurisdiction and any local authority, national authority or supra national agency, inspectorate, minister, Scottish Executive, Scottish Ministers, Transport Scotland, body, official or public or statutory person of the government of the United Kingdom or of the European Union and "Relevant Authorities" shall be construed accordingly;

"Request for Information" shall have the meaning set out in FOISA and shall include any apparent request for information under FOISA, the Environmental Information Regulations or the Code;

"Required Insurances" means the insurances set out in Part 1 of Schedule 11 (*Required Insurances*) as may be amended from time to time in accordance with this Agreement;

"Responding Party" has the meaning given in paragraph 17 of Schedule 9 (*Dispute Resolution Procedure*);

"Retention" shall have the meaning given in Clause 49.13;

"Review Procedure" means the review procedure set out in Schedule 5 (*Review Procedure*);

"Risk Services" means the services to be provided by the MUDFA Contractor as described in Part 5 of Schedule 1 (*Scope of Works and Services*);

"Schedules" means Schedule 1 (*Scope of Works and Services*), Schedule 2 (*Technical Requirements*), Schedule 3 (*Specification*), Schedule 4 (*Bills of Quantities*), Schedule 5 (*Review Procedure*), Schedule 6 (*Sub-Contractor Collateral Warranty*), Schedule 7 (*Bonds*), Schedule 8 (*Programme*), Schedule 9 (*Dispute Resolution Procedure*), Schedule 10 (*Panels for the Dispute Resolution Procedure*), Schedule 11 (*Required Insurances*), Schedule 12 (*Key Personnel*), Schedule 13 (*Third Party Agreements*), Schedule 14 (*Parent Company Guarantee*), Schedule 15 (*MUDFA Contractor Collateral Warranty*), Schedule 16 (*Demarcation Drawings*)

and Schedule 17 (*tie Policies*) as the same may be amended from time to time in accordance with the terms of this Agreement;

"Scotland Gas Networks" means Scotland Gas Networks PLC, a company incorporated under the Companies Act with registered number SC 264065 and having its registered office at Inveralmond House, 200 Dunkeld Road, Perth, Perthshire PH1 3AQ;

"Scotland Gas Networks Apparatus" means any mains, pipes, pressure governors, ventilators, cathodic protection or other equipment, apparatus belonging to or maintained by a gas transporter, including Scotland Gas Networks, within the meaning of Part 1 of the Gas Act 1986 for the purposes of the transportation and/or supply of gas and includes any structure for the lodging within that structure of apparatus or any structure required for giving access to apparatus whether or not forming part of the MUDFA Works;

"Scotland Gas Networks Works" means any works to be carried out by the MUDFA Contractor in respect of Scotland Gas Apparatus which are described in Part 4 of Schedule 1 (*Scope of Works and Services*);

"Scottish Environment Protection Agency" or "SEPA" means a body established under the Environment Act 1995 and having its principal office at Erskine Court, Castle Business Park, Stirling, FK9 4TR;

"Scottish Natural Heritage" means a statutory agency whose remit is set out in sections 1, 2 and 3 of the Natural Heritage (Scotland) Act 1991 and having its principal office at 12 Hope Terrace, Edinburgh, EH9 5NP;

"Scottish Water" means a body established under the Water Industry (Scotland) Act 2002 and having its principal office at Castle House, 6 Castle Drive, Dunfermline, Fife KY11 8GG;

"Scottish Water Apparatus" means any equipment, apparatus or other devices belonging to or maintained by Scottish Water above or below ground and includes any structure for the lodging within that structure of equipment or apparatus or any structure required to maintain or afford access whether or not forming part of the MUDFA Works;

"Scottish Water Works" means any works to be carried out by the MUDFA Contractor in respect of Scottish Water Apparatus which are described in Part 4 of Schedule 1 (*Scope of Works and Services*);

"SDS Provider" means Parsons Brinckerhoff Limited, a company incorporated under the Companies Act with registration number 02554514 and having its registered office at Amber Court, William Armstrong Drive, Newcastle Business Park, Newcastle Upon Tyne, NE4 7YQ which expression shall include its permitted assignees or such other system design services provider appointed by **tie** from time to time in relation to the Edinburgh Tram Network;

"Site" means the land, or places on, under, in, or through which the MUDFA Works are to be constructed which shall include the LOD and LLAU as the same are shown in the drawings set out in Schedule 16 (*Demarcation Drawings*), any other lands or places covered by the Land Consents and/or land provided by **tie** for the purposes of the Agreement together with such other places as may be designated in the Agreement or subsequently agreed by **tie's** Representative as forming part of the Site;

"Special Requirements " means those requirements described in Clause 11.1;

"Specific Change in Law" means any Change in Law which specifically applies to the provision of works the same as or similar to the MUDFA Works but excluding the making, amendment or revocation of any traffic regulation order;

"Specification" means the specification or specifications set out in Schedule 3 (*Specification*) and any modification thereof or addition thereto as may from time to time be furnished or approved in writing by **tie's** Representative;

"Stakeholder Services" means the services to be provided by the MUDFA Contractor as described in Part 6 of Schedule 1 (*Scope of Works and Services*);

"Stakis" means Stakis Limited a company incorporated under the Companies Acts with registered number SC22163 and having its registered office at 4 Cadogan Square, Glasgow G27PH;

"Stakis Property" means ALL and WHOLE the subjects let to Stakis by virtue of (1) the Lease between Edinburgh Airport Limited and Stakis plc dated 10 March and 5 April and recorded in the Division of the General Register of Sasines applicable to the County of Midlothian as in the Books of Council and Session on 21 April, all months in the year 1995, and (2) the Minute of Variation of Lease between Edinburgh

Site No.1 (CI) Limited and Stakis Limited dated 27 November and 19 December both months in the year 2003, and recorded in the Division of the General Register of Sasines applicable to the County of Midlothian as in the Books of Council and Session on 14 April 2004;

"Stakis Site" means those subjects forming part of the Stakis Property and which, for the purposes of the Edinburgh Tram (Line Two) Act 2006 comprise Plot Numbers 329, 330, 333 and 334 on parliamentary drawing number 20 as annexed to the Edinburgh Tram (Line Two) Act 2006, but only to the extent the same are let to Stakis as the Stakis Property;

"Sub-Contractor" means any sub-contractor, sub-consultant, supplier, specialist, Utility Specialist Contractor and/or other party appointed in accordance with Clause 12 (*Sub-Contracting*), or otherwise approved by **tie**, and "Sub-Contract" is to be interpreted accordingly;

"Submitted Item" has the meaning given in paragraph 1.2 of Schedule 5 (*Review Procedure*);

"Substantial Completion" has the meaning given to it in Clause 40.3;

"Temporary Works" means all temporary works of every kind required in or about the construction and completion of the MUDFA Works;

"Tender Total" or "TT" means the total of the Bills of Quantities at the Effective Date;

"Third Party Agreements" means the agreements detailed in Schedule 13 (*Third Party Agreements*)

"Third Party Software" means programs, the Intellectual Property Rights in which are (a) owned by a third party and (b) used by the MUDFA contractor to carry out its obligations under this Agreement;

"Thus" means Thus PLC, a company incorporated under the Companies Act with registered number SC 192666 and having its registered office at 1-2 Berkeley Square, 99 Berkeley Street, Glasgow G3 7HR;

"Thus Apparatus" means any equipment, apparatus or other devices belonging to or maintained by Thus above or below ground and includes any structure for the lodging

within that structure of equipment or apparatus or any structure required to maintain or afford access, whether or not forming part of the MUDFA Works;

"Thus Works" means any works to be carried out by the MUDFA Contractor in respect of Thus Apparatus which are described in Part 4 of Schedule 1 (*Scope of Works and Services*);

"tie Change" means any addition, modification, reduction or omission in respect of the MUDFA Works or any other term of this Agreement instructed in accordance with Clause 46 (*Changes*);

"tie Change Order" means the written confirmation issued by tie to proceed with a tie Change on the basis of an Estimate (as modified, if required);

"tie Default" means one of the following events:

- a) a failure by tie to make payment of any amount of money that is certified in Interim Certificates as due and payable by tie to the MUDFA Contractor under this Agreement exceeding 5% of the Tender Total; or
- b) a breach by tie of any of its material obligations under this Agreement which substantially frustrates or renders it impossible for the MUDFA Contractor to perform its obligations under this Agreement for a continuous period of sixty days;

"tie Notice of Change" means a notice issued under Clause 46 (*Changes*);

"tie Party" means any advisers appointed by tie or any of tie's employees, agents, contractors and sub-contractors of any tier and its or their directors, officers and employees (excluding the MUDFA Contractor and any MUDFA Contractor Party);

"tie's Drug and Alcohol Policy" means the policy set out at Schedule 17 (*tie Policies*);

"tie's Representative" means any person, firm or company so appointed from time to time by tie and notified in writing as such to the MUDFA Contractor;

"Tram Legislation" means the Edinburgh Tram (Line One) Act 2006, the Edinburgh Tram (Line Two) Act 2006 and such other legislation relative to the Edinburgh Tram Network as may be enacted from time to time;

"Tram Limits of Deviation" means the limits of deviation set out in the Tram Legislation;

"Tram Supplier" means the tram supplier to be appointed or appointed by **tie** in relation to the supply and maintenance of trams for the Edinburgh Tram Network;

"Transport Edinburgh Limited" or **"TEL"** means Transport Edinburgh Limited a company incorporated under the Companies Act with registered number SC269639 and having its registered office at 55 Annandale Street, Edinburgh, Midlothian, EH7 4AZ;

"TTROs" means temporary traffic regulation orders;

"Utilities" means BT, Easynet, NTL, Scottish Water, Scotland Gas Networks and Thus and **"Utility"** shall be construed accordingly;

"Utility Permit to Work" means any permit to work required by a Utility before any work can commence on the Site;

"Utility Specialist Contractors" means Easynet and/or its approved sub-contractor and shall mean any other Utility or its approved sub-contractor, or any other specialist contractor or consultant which **tie** shall require the MUDFA Contractor to appoint as its sub-contractor in accordance with Clauses 3.14, 53.1 or 53.2 or otherwise in accordance with Clause 12 (*Sub-Contracting*) and the other provisions of this Agreement;

"Utilities Specifications" means the specifications for the MUDFA Works in respect of each of the Utilities' Apparatus as set out in Appendix A of Schedule 3 (*Specification*);

"Utilities Works" means any works carried out, or to be carried out, by the Utilities or any other public utility company whether relative to the MUDFA Works or otherwise;

"Value Engineering Incentive" or **"VEI"** means (Tender Total - Anticipated Final Account) x 20% which sum shall be no greater than £1,000,000 sterling and no less than £250,000 sterling;

"Value Engineering Incentive Payment" shall be calculated as follows:

Final Account	Value Engineering Incentive Payment
Where FA = AFA + ($\geq 10\%$ of the AFA)	0
Where FA = AFA + ($\geq 7.5\% < 10\%$ of the AFA)	VEI x 10% or £250,000, whichever is the greater
Where FA = AFA + ($\geq 5\% < 7.5\%$ of the AFA)	VEI x 33% or £250,000, whichever is the greater
Where FA = AFA + ($\geq 2.5\% < 5\%$ of the AFA)	VEI x 66% or £250,000, whichever is the greater
Where FA = AFA + ($< 2.5\%$ of the AFA)	VEI x 85% or £250,000, whichever is the greater
Where FA = AFA	VEI
Where FA = AFA - ($< 2.5\%$ of the AFA)	VEI x 110%
Where FA = AFA - ($\geq 2.5\% < 5\%$ of the AFA)	VEI x 120%
Where FA = AFA - ($\geq 5\% < 7.5\%$ of the AFA)	VEI x 130%
Where FA = AFA - ($\geq 7.5\% < 10\%$ of the AFA)	VEI x 140%
Where FA = AFA - ($\geq 10\%$ of the AFA)	VEI x 150%

"Works Breakdown Structure" or "WBS" means the works breakdown structure to be developed by the MUDFA Contractor in accordance with Schedule 1 (*Scope of Works and Services*);

"Work Order" means any order issued by **tie** in accordance with Clause 8.8;

"Work Order Confirmation Notice" means any work order confirmation notice issued by **tie** in accordance with Clause 8.8;

"Work Order Proposal" means any work order proposals given by the MUDFA Contractor in accordance with Clause 8.8;

"Work Order Requirements" means the work order requirements set out in Clause 8.9;

"Work Section" means a sub-section of a Work Sector;

"Work Section Programme" means the programme developed by the MUDFA Contractor in respect of each Work Section which shall form part of the Construction Programme;

"Work Sector" means the work sectors which are identified as follows:

"WS"	From		To	
	Stop/Street	Chainage	Stop/Street	Chainage
5	Haymarket (Roseburn Junction)	L2 30,215	Gogar (Gogar Depot)	L2 38,170
6	Gogar (including Depot Area)	L2 38,170	Airport	L2 41,110
2	Haymarket Corridor (Haymarket Terrace)	L1 6,370 L2 30,000	Haymarket Corridor (Roseburn Junction)	L1 7,220 L2 30,215
1	Haymarket (Haymarket Terrace)	L1 6,370	Newhaven Road (Lindsay Road)	L14,870
4	Haymarket (Roseburn Junction)	L1 7,220	Granton Square (North of Granton Park Avenue)	L1 12,690

"Work Site" means any work site within any Work Section;

"Work Site Completion Certificate" has the meaning given in paragraph 3.7.1 of Schedule 2 (*Technical Requirements*);

"the 1991 Act" means the New Roads and Street Works Act 1991;

"the 2003 Regulations" means the Road Works (Sharing of Costs of Works) (Scotland) Regulations 2003;

1.2 Unless the context requires otherwise:

1.2.1 words importing gender include masculine, feminine and neuter;

1.2.2 the singular includes the plural, and vice versa;

1.2.3 a reference to any Clause, Sub-Clause or Schedule is, except where it is expressly stated to the contrary, a reference to such Clause, Sub-Clause or Schedule to this Agreement;

- 1.2.4 a reference in any Schedule to any Part, paragraph or sub-paragraph is, except where it is expressly stated to the contrary, a reference to such part, paragraph or sub-paragraph of that Schedule (as the case may be);
- 1.2.5 any reference to this Agreement or to any other document shall include any variation, amendment, or supplement to this Agreement or such other document as expressly permitted under the terms of this Agreement;
- 1.2.6 any reference to any enactment, draft enactment order, regulation or other similar instrument (including any EU instrument) (whether specifically named or not) shall be construed as a reference to the enactment, order, regulation or instrument as amended, replaced, consolidated or re-enacted and shall include any orders, consents, regulations, legally binding codes of practice or subordinate legislation (within the meaning of section 21(1) of the Interpretation Act 1978) made thereunder;
- 1.2.7 a reference to a person includes individuals, firms, partnerships, bodies corporate, joint ventures, government departments and any organisation capable of suing or being sued and references to any of the same include the others and their successors and assignees and transferees ;
- 1.2.8 the ejusdem generis rule does not apply and the meaning of general words is not to be restricted by any particular examples preceding or following those general words;
- 1.2.9 a reference to a time of day is a reference to the time in Scotland;
- 1.2.10 subject to the restrictions imposed by this Agreement on subcontracting, an obligation to do something includes an obligation to procure it to be done;
- 1.2.11 an obligation not to do something includes an obligation not to wilfully allow it to be done;
- 1.2.12 the word "including" means "including without limitation"; and
- 1.2.13 a reference to "consent" shall mean consent in writing;
- 1.2.14 the headings and marginal notes in the Agreement shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof or of the Agreement;

1.2.15 the word "cost" when used in the Agreement means all expenditure properly incurred or to be incurred whether on or off the Site including overheads, finance and other charges properly allocatable thereto but does not include any allowance for profit;

1.2.16 communications which under the Agreement are required to be "in writing" may be handwritten, typewritten or printed and sent by hand, post, email, facsimile or other means resulting in a permanent record;

1.2.17 any reference to any Deliverable or course of action being reviewed, approved, agreed, consented to or otherwise processed in accordance with this Agreement, means that the provisions of Schedule 5 (*Review Procedure*) shall apply except where otherwise agreed in writing by **tie**; and

1.2.18 References to "traffic management" and "Temporary Traffic Regulation Orders" (TTROs) shall be deemed to include the requirements of BAA, Forth Ports and any other third party relating to road closures and procedures.

1.3 Where a party comprises two or more persons:

1.3.1 any obligations on the part of that party contained or implied in this Agreement are deemed to be joint and several obligations on the part of those persons; and

1.3.2 references to that party include references to each and any of those persons.

1.4 This Agreement shall come into effect on the Effective Date.

1.5 The value of any additional costs claimed by the MUDFA Contractor in accordance with this Agreement shall be determined in accordance with Clause 46.5.

2. MUDFA CONTRACTOR'S GENERAL RESPONSIBILITIES

2.1 **tie** hereby appoints the MUDFA Contractor in accordance with the terms of this Agreement and the MUDFA Contractor hereby accepts full responsibility and agrees to carry out the MUDFA Works.

2.2 The MUDFA Contractor warrants to **tie** that, in the performance of the MUDFA Works it shall exercise a reasonable level of professional skill, care and diligence to be expected of a properly qualified and competent contractor experienced in carrying

out and completing works similar to the MUDFA Works in connection with projects of a similar size, scope and complexity.

- 2.3 The MUDFA Contractor shall (each as distinct and separate obligations) carry out the MUDFA Works (exercising the level of skill, care and diligence set out in Clause 2.2):
- 2.3.1 so as to comply in all respects with this Agreement;
 - 2.3.2 with the awareness that the Edinburgh Tram Network is to be constructed, installed, tested and commissioned, and thereafter operated and maintained insofar as this is compatible with the obligations on the MUDFA Contractor under this Agreement;
 - 2.3.3 in accordance with the MUDFA Contractor's quality management system and plans;
 - 2.3.4 in accordance with the Design Manual to the extent applicable to the MUDFA Works;
 - 2.3.5 to comply with the Tram Legislation to the extent applicable to the MUDFA Works;
 - 2.3.6 to comply with all applicable Law, Land Consents which are notified to the MUDFA Contractor and Consents to the extent applicable to the MUDFA Works;
 - 2.3.7 in compliance with the Environmental Statements, and all other applicable environmental regulations and requirements;
 - 2.3.8 in accordance with Good Industry Practice;
 - 2.3.9 to assist **tie** in ensuring that the design of the MUDFA Works prepared by the SDS Provider is buildable insofar as this is compatible with the obligations on the MUDFA Contractor under this Agreement;
 - 2.3.10 to assist **tie** in ensuring that best value (pursuant to the Local Government (Scotland) Act 1973 as amended by the Local Government in Scotland Act 2003) has been secured in the performance of the MUDFA Works;

- 2.3.11 in such manner so as not wilfully to detract from the image and reputation of **tie**, Transport Edinburgh Limited, CEC, the Scottish Ministers, the Utilities or the Edinburgh Tram Network;
 - 2.3.12 in a manner that is not likely to be injurious to persons or property; and
 - 2.3.13 using the Key Personnel and such other staff as may be approved by **tie**.
- 2.4 Notwithstanding that the SDS Provider shall be responsible for the design and specification of the MUDFA Works in accordance with all applicable Law (excluding the Temporary Works), the MUDFA Contractor shall be responsible for its input into the design and specification of the MUDFA Works or any part thereof (except as may be expressly provided in this Agreement). The MUDFA Contractor shall carry out the design and specification of any Temporary Works and the MUDFA Contractor shall exercise the level of skill, care and diligence set out in Clause 2.2 in carrying out such design and specification.
- 2.5 The MUDFA Contractor shall, to the extent necessary to carry out the MUDFA Works and its other obligations under this Agreement take due and proper account of the risks associated with the Edinburgh Tram Network arising from:
- 2.5.1 use by third parties of any of the land which will form part of or be associated with or will be adjacent to the Edinburgh Tram Network;
 - 2.5.2 the quality of any existing structures; and
 - 2.5.3 safety requirements and environmental matters.
- 2.6 In carrying out the MUDFA Works, the MUDFA Contractor shall use best endeavours to:
- 2.6.1 maximise construction productivity by reference to international best practice;
 - 2.6.2 minimise disruption to the city of Edinburgh;
 - 2.6.3 minimise the diversionary works in relation to the Apparatus;
 - 2.6.4 maintain safety; and
 - 2.6.5 minimise out-turn costs.

- 2.7 The MUDFA Contractor shall at all times keep itself fully informed about current professional standards and about all matters relating to, or which might have a bearing on, carrying out the MUDFA Works.
- 2.8 The MUDFA Contractor's duties and obligations under or pursuant to this Agreement will not be released, diminished or in any other way affected by any independent inquiry into any matter which may be made or carried out by **tie** or by any firm, company or party on **tie's** behalf nor by any action or omission of any such firm, company or party whether or not such action or omission might give rise to any independent liability of such firm, company or party to **tie**.
- 2.9 The MUDFA Contractor is deemed to have satisfied itself that it fully understands the scope and extent of the MUDFA Works, and that it has sufficient information or will at the relevant time have sufficient information, to enable it to carry out the MUDFA Works.
- 2.10 The MUDFA Contractor acknowledges that **tie** will rely upon the skill and judgement of the MUDFA Contractor in connection with all matters for which the MUDFA Contractor is responsible under this Agreement.
- 2.11 The MUDFA Contractor acknowledges that certain Background Information has been made available to it in relation to this Agreement. The MUDFA Contractor further acknowledges that **tie** does not give any warranty or undertaking as to the completeness, currency, accuracy or fitness for any purpose of any of the Background Information and, subject to the express provisions of this Agreement, neither **tie**, CEC, any **tie** Parties, nor any of its or their employees shall be liable to the MUDFA Contractor in contract, delict (including breach of statutory duty), or otherwise as a result of:
- 2.11.1 any inaccuracy, error, defect, omission, unfitness for any purpose or inadequacy of any kind whatsoever in the Background Information; nor
- 2.11.2 any failure to make available to the MUDFA Contractor any materials, documents, drawings, plans or other information relating to this Agreement;
- provided that nothing in this Clause 2.11 shall exclude any liability in respect of any statements made or information provided fraudulently.
- 2.12 The MUDFA Contractor acknowledges and confirms that as part of the MUDFA Works it has conducted its own analysis and review of the Background Information

and has before the Effective Date satisfied itself with regard to such Background Information upon which it places reliance.

- 2.13 The MUDFA Contractor shall liaise with Infraco, the SDS Provider, the Utilities, **tie**, any **tie** Party, and any other parties as may be required by **tie** to facilitate the production, by such persons, of any information required from them, in order that the MUDFA Works can be progressed according to the Programme. The MUDFA Contractor shall liaise with Infraco, the SDS Provider, the Utilities, **tie**, any **tie** Party, and any other parties as may be required by **tie** as often as is necessary in order to ensure that the MUDFA Works are carried out properly and in accordance with the terms of this Agreement.
- 2.14 The MUDFA Contractor shall collaborate and liaise with **tie** and the SDS Provider throughout carrying out the MUDFA Works, inter alia, to ensure due consideration is given to the type of materials, optimum and cost effective construction methods, construction programme and temporary works, as appropriate.
- 2.15 Where **tie**, or other bodies or persons involved in related works or services appoint other consultants or use their own staff for purposes related to the MUDFA Works, the MUDFA Contractor shall use all reasonable endeavours (including the use of liaison with such other bodies or persons) to ensure that the MUDFA Works and these related works are carried out together with the greatest economy and in accordance with the Programme.
- 2.16 In carrying out the MUDFA Works, the MUDFA Contractor will have regard to the constraints imposed by the Programme and to the objective of keeping the overall costs of the MUDFA Works within any budgetary constraints notified to the MUDFA Contractor by **tie**. If the MUDFA Contractor considers that there may be a conflict between its obligations under this Clause 2.16 and the performance of the MUDFA Works, the MUDFA Contractor shall within 3 Business Days give written notice of the same to **tie**.
- 2.17 The MUDFA Contractor warrants to **tie** that it has not and shall not use any materials which at the time of use:
- 2.17.1 are known to be deleterious in the particular circumstances in which they are used (either to health and safety or to the durability of any works on which the MUDFA Contractor is employed by **tie**); or

- 2.17.2 contravene any relevant standard or code of practice issued from time to time by the BSI Group or under a European directive relating to standards; or
 - 2.17.3 do not accord with the guidelines contained in the edition of the publication "Good Practice in Selection of Construction Materials" (Ove Arup & Partners) current at the date of specification or use; or
 - 2.17.4 contravene Good Industry Practice.
- 2.18 The MUDFA Contractor shall warrant that any materials supplied as part of the MUDFA Works shall be in accordance with Schedule 3 (*Specification*) and/or the requirements of any relevant Works Order.
- 2.19 The Parties undertakes to co-operate with each other in order to facilitate the carrying out of the MUDFA Works and in particular will:
- 2.19.1 approach all pricing, estimating and budgeting functions on a collaborative and Open Book Basis in respect of the MUDFA Works and subject to Clause 46.5;
 - 2.19.2 use reasonable endeavours to avoid unnecessary complaints, disputes and claims against each other;
 - 2.19.3 not interfere with the rights of the other party in performing its obligations under this Agreement, nor in any other way hinder or prevent the other party from performing those obligations or from enjoying the benefits of its rights;
 - 2.19.4 take reasonable steps to mitigate any costs, unnecessary acts, foreseeable losses and liabilities of either party; and
 - 2.19.5 take all reasonable steps to manage, minimise and mitigate all costs.
- 2.20 The MUDFA Contractor shall notify **tie** of any ground, physical, geophysical investigations or archaeological or ecological surveys or any other investigations or surveys which it intends to carry out before such investigations or surveys are carried out.
- 2.21 The MUDFA Contractor shall subject to the provisions of the Agreement provide all labour, goods, materials, MUDFA Contractor's Equipment, Temporary Works, transport to and from and in or about the Site, services and everything whether of a temporary or permanent nature required in and for the execution and completion of

the MUDFA Works so far as the necessity for providing the same is specified in the Agreement or could be reasonably foreseen therefrom by a contractor experienced in work of a similar nature and scope as the MUDFA Works.

- 2.22 The MUDFA Contractor shall take full responsibility for the adequacy, stability and safety of all site operations and methods of construction.
- 2.23 As soon as reasonably practicable that the MUDFA Contractor becomes aware that any element of MUDFA Works is likely to be abortive work for any reason, the MUDFA Contractor shall notify **tie** of:
- 2.23.1 the probable nature of the abortive work;
 - 2.23.2 the cause of the abortive work being abortive;
 - 2.23.3 the estimated effect of the abortive work in terms of cost, of time in completion of the MUDFA Works and of any other matters in relation to the Agreement; and
 - 2.23.4 any measures to be taken which may mitigate that effect.
- 2.24 The MUDFA Contractor and **tie** shall jointly investigate, and **tie** shall determine the actual extent of any abortive work.
- 2.25 Payment by **tie** to the MUDFA Contractor in respect of any abortive work which has been carried out by the MUDFA Contractor shall be determined as a variation in accordance with Clause 46 (*Changes*) and shall be paid in accordance with Clause 49 (*Payment*) provided always that no payment shall be due for abortive work which has resulted from any fault of the MUDFA Contractor and/or any breach by the MUDFA Contractor of its obligations under this Agreement.
- 2.26 The MUDFA Contractor shall not carry out the MUDFA Works or any part thereof on any land which lies outwith the LOD or LLAU (as the same are shown in the drawings set out in Schedule 16 (*Demarcation Drawings*)) unless expressly instructed to do so by **tie** as part of a Work Order or as otherwise instructed in accordance with this Agreement.

3. OBLIGATIONS IN RESPECT OF THE UTILITIES

- 3.1 The MUDFA Contractor warrants to **tie** that in carrying out the MUDFA Works it shall ensure that:

- 3.1.1 all MUDFA Works are carried out in accordance with the relevant requirements of the Utilities Specifications and the relevant Works Order Requirements;
 - 3.1.2 that any action of the MUDFA Contractor or any MUDFA Contractor Party does not cause any Utility to be in breach of its statutory duties;
 - 3.1.3 all Apparatus is appropriately safeguarded and protected in accordance with the relevant Utilities Specifications, the relevant Works Order Requirements and relevant Access Permit; and
 - 3.1.4 all new Apparatus and materials which is installed or used in the carrying out of the MUDFA Works are in accordance with the relevant part of the Utilities Specifications and the relevant Works Order Requirements.
- 3.2 Throughout the term of this Agreement, the MUDFA Contractor shall ensure that it keeps **tie** fully and promptly informed of all material matters concerning the MUDFA Works, particularly those matters which could adversely affect the ability of any of the Utilities to continue to supply uninterrupted services to their customers and the public.
- 3.3 In the event of any dispute or difference arising between any of the Utilities and **tie** in respect of the MUDFA Works, the MUDFA Contractor shall provide **tie** with such assistance as **tie** may require to resolve such dispute or difference, and the demonstrable, reasonable and direct costs of such assistance shall be paid by **tie** provided that such dispute or difference has not arisen as a result of the breach of this Agreement by the MUDFA Contractor.
- 3.4 The MUDFA Contractor undertakes (and shall procure that each MUDFA Contractor Party shall undertake) not to use any means or to take any actions which could have the effect of nullifying, undermining or rendering less effective or ineffective any provision of, or the underlying purpose of any agreement which **tie** may have in place with any of the Utilities provided that any such agreements shall have been disclosed to the MUDFA Contractor.
- 3.5 The MUDFA Contractor shall ensure that the MUDFA Contractor's Representative or an alternative suitably qualified representative attends such meetings with any of the Utilities as may be required by **tie** to review the status of the MUDFA Works and any

other issues which are of concern to or affect any of the Utilities in relation to the MUDFA Works.

- 3.6 On the provision of at least one Business Day's notice, the MUDFA Contractor shall permit any of the Utilities to inspect the MUDFA Works or any part of the MUDFA Works. In the event of an emergency, the MUDFA Contractor shall facilitate access to the Utilities for inspection purposes without the provision of any prior notice.
- 3.7 The MUDFA Contractor shall provide such assistance to any of the Utilities as may be required to deal with any situation where any of the Utilities is required to carry out any emergency works in pursuance of any statutory or regulatory obligation, and/or in the interests of health and safety. Any demonstrable, reasonable and direct costs incurred by the MUDFA Contractor in providing such assistance shall be paid by **tie** to the MUDFA Contractor provided that such emergency works are not required as a result of the breach of this Agreement by the MUDFA Contractor.
- 3.8 The MUDFA Contractor shall comply with all relevant health and safety regulations and standards. In the event of a health and safety related event arising as a result of the MUDFA Works, the MUDFA Contractor shall carry out any remedial or other work or repair as instructed by **tie's** Representative in accordance with Clause 33 (*Urgent Repairs and Emergencies*), and the MUDFA Contractor shall provide **tie** with such assistance as **tie** may require to ensure that a solution is reached to resolve the situation which is acceptable to both the relevant Utility and **tie**.
- 3.9 The MUDFA Contractor acknowledges that certain of the Utilities shall be carrying out Utility Works at the same time as the MUDFA Works are being carried out. The MUDFA Contractor shall use reasonable endeavours to allow the execution by any of the Utilities of such Utility Works and the MUDFA Contractor shall co-ordinate the MUDFA Works with the Utility Works. For the avoidance of doubt, the Utility Works shall not form part of the MUDFA Works.
- 3.10 On reasonable notice from **tie**, the MUDFA Contractor shall allow access to any surveyor to carry out condition surveys of any Apparatus on behalf of **tie** or on behalf of any of the Utilities.
- 3.11 If any survey demonstrates that the MUDFA Contractor has damaged any Apparatus, the cost of the survey, the making good of such damage and all other demonstrable costs shall be met by the MUDFA Contractor.

3.12 If the MUDFA Contractor uncovers previously unreferenced apparatus during the course of the MUDFA Works, the MUDFA Contractor shall:

3.12.1 do all things reasonably necessary (which shall include contacting the Utilities) to identify the owner or party responsible for the apparatus;

3.12.2 as instructed by **tie**, apply for and obtain, or assist in applying for and obtaining all such approvals as may be required to allow the MUDFA Contractor to continue to carry out the MUDFA Works in respect of such apparatus; and

3.12.3 procure any other relevant information, as may be required by **tie**, in respect of such apparatus;

in such a way as to minimise so far as possible any adverse impact on the Programme.

3.13 The MUDFA Contractor may, if necessary, ask **tie** to request the reasonable assistance of any of the Utilities in order to assist the MUDFA Contractor to carry out the activities specified in Clause 3.12 above.

3.14 Notwithstanding Part 4 of Schedule 1 (*Scope of Works and Services*), in the event that certain of the Construction Works may only be carried out by a Utility by virtue of a statutory or other regulatory obligation, or in the event that any Utility makes a specific request to **tie** that the Utility wishes itself to carry out certain of the Construction Works or if there are specialist works or services which are required, if required by **tie**, the MUDFA Contractor shall use its best endeavours to procure the appointment of a Utility Specialist Contractor to execute that part of the Construction Works, and the provisions of Clause 12.6 shall apply.

3.15 The MUDFA Contractor shall assist **tie** by supplying any information on costs as may be required by **tie** in its negotiations with any of the Utilities in relation to the recovery of costs under the 1991 Act and/or the 2003 Regulations.

3.16 In carrying out the MUDFA Works in relation to BT Apparatus the MUDFA Contractor shall;

3.16.1 comply with BT Specification LN550 (Issue 6), the relevant part of the Utilities Specification and the relevant Works Order Requirement;

- 3.16.2 warrant that all materials used in respect of the MUDFA Works in relation to BT Apparatus conform to all applicable BT specifications, and drawings, the relevant part of the Utilities Specification and the relevant Works Order Requirements;
- 3.16.3 undertake to remedy all defects in the MUDFA Works in relation to BT Apparatus which arise from faulty or incorrect materials, workmanship or performance standards which are not in accordance with the applicable BT specifications, drawings and instructions, the relevant part of the Utilities Specification and the relevant Works Order Requirements;
- 3.16.4 warrant in respect of the structures of installed jointing chambers for a period of at least ten years, and in respect of installed ducts, for a period of at least five years, that the said jointing chambers and installed ducts conform to all applicable BT specifications. This warranty shall commence on the day that access to such jointing chambers and ducts is made available to BT; and
- 3.16.5 take any corrective action that may be notified to the MUDFA Contractor by **tie** and ensure that such corrective action is taken without undue delay and within a reasonable timescale to replace the defective materials in respect of any MUDFA Works relative to BT Apparatus or to commence the necessary remedial work as soon as possible, but in any case within such reasonable time as may be specified by **tie**.
- 3.17 Without prejudice to any other right or remedy of **tie**, if the MUDFA Contractor does not repair or replace the defective materials or attend the relevant site and effect all necessary remedial work to the reasonable satisfaction of **tie** within such period as may be specified by **tie**, then **tie** or BT may perform the work or make arrangements for the work to be performed by a third party, and the reasonable and proper costs of so doing shall be payable by the MUDFA Contractor;
- 3.18 Without prejudice to any other right or remedy of **tie**, where defective work carried out by the MUDFA Contractor at any time results in additional costs being incurred by **tie** due to the imposition of charges on BT from any third party, such reasonable costs and charges shall be recoverable in full from the MUDFA Contractor subject to Clause 84 (*Limitation*).
- 3.19 The MUDFA Contractor shall not execute the placing, installation, bedding, packing, removal, connection or disconnection of any Scotland Gas Networks Apparatus, or

execute any filling around the Scotland Gas Networks Apparatus (where the Scotland Gas Networks Apparatus is laid in a trench) within 600 millimetres of the Scotland Gas Networks Apparatus or where the Scotland Gas Networks Apparatus is operating at or in excess of seven bar pressure within 1500 millimetres of the Scotland Gas Networks Apparatus.

4. PERFORMANCE BOND, PARENT COMPANY GUARANTEE AND COLLATERAL WARRANTIES

4.1 No later than 10 Business Days prior to the anticipated commencement of any Construction Works, the MUDFA Contractor shall provide to **tie** a performance bond in substantially the same form as set out in Part A (*Performance Bond*) of Schedule 7 (*Bonds*) which has been issued by a surety approved in advance by **tie** (the "Performance Bond") provided always that the Performance Bond shall be for an amount of £5,000,000 sterling and shall be callable by **tie** on demand.

4.2 On the date of the last Certificate of Substantial Completion in respect of the MUDFA Works, the MUDFA Contractor shall provide to **tie** a retention bond in the form set out in Part B (*Retention Bond*) of Schedule 7 (*Bonds*) which has been issued by a surety approved in advance by **tie** (the "Retention Bond"). The Retention Bond shall be for an amount of £1,500,000 sterling.

4.3 The obligation on the MUDFA Contractor to provide a Performance Bond in accordance with Clause 4.1 shall be released on the earlier of:

4.3.1 the date on which the MUDFA Contractor provides the Retention Bond to **tie** in terms of Clause 4.2;

4.3.2 ninety days after the date of termination of this Agreement; or

4.3.3 ninety days after the date of issue of the Defects Correction Certificate in respect of the MUDFA Works;

save in connection with any demand notice issued to the surety in writing under the terms of the Performance Bond prior to the expiry of the said periods set out in Clause 4.3.1, Clause 4.3.2 or Clause 4.3.3.

4.4 On the expiry of the Defects Correction Period and the issue of the Defects Correction Certificate, the obligation on the MUDFA Contractor to provide a Retention Bond in accordance with Clause 4.2 shall be released.

- 4.5 In the event the credit rating of the surety referred to in Clause 4.1 or Clause 4.2 as appropriate is downgraded to A- or a lower rating by Standard & Poors, **tie** shall be entitled to request the MUDFA Contractor to procure a substitute performance bond or retention bond on identical terms from a surety approved in advance by **tie**.
- 4.6 On the Effective Date, the MUDFA Contractor shall procure the execution and delivery to **tie**, of a parent company guarantee in the form set out Schedule 14 (*Parent Company Guarantee*).
- 4.7 Within thirty days of any written request from **tie** (or such longer period as the Parties, acting reasonably, may agree), the MUDFA Contractor shall execute a collateral warranty in the form set out Schedule 15 (*MUDFA Contractor Collateral Warranty*) or where such form is not acceptable, in a different form which is acceptable to both Parties (acting reasonably) in favour of CEC, Transport Scotland, TEL, Network Rail and the Utilities in respect of carrying out the MUDFA Works.

5. DOCUMENTS MUTUALLY EXPLANATORY

- 5.1 Subject to Clause 5.2, the several documents forming the Agreement are to be taken as mutually explanatory of one another and in case of ambiguities or discrepancies the same shall be explained and adjusted by **tie** who shall thereupon issue to the MUDFA Contractor appropriate instructions in writing which shall be regarded as instructions issued in accordance with Clause 14 (*Work to be to Satisfaction of tie*) provided that in the event of any inconsistency or conflict between the main body of this Agreement and the Schedules and the Formal Offer and/or the Letter of Appointment, the main body of the Agreement and the Schedules shall prevail to the extent of any such inconsistency or conflict over the Formal Offer and/or the Letter of Appointment unless expressly stated otherwise by **tie**.
- 5.2 The MUDFA Contractor shall review all the documents forming the Agreement, and all documents, drawings or other subsequent information produced to amplify the documents forming the Agreement and/or issued by **tie** as part of a Works Order within 10 Business Days of the date of receipt of such documents, drawings or other subsequent information received as part of a Work Order, or, within 10 Business Days or such longer period as may be agreed by **tie** (acting reasonably) in respect of any other documents, drawings or other subsequent information received which does not form part of a Work Order and shall bring to the attention of **tie's** Representative any discrepancies, or requirements for further information arising from them. Failure

to comply with this obligation shall prevent the MUDFA Contractor from being entitled to an extension of time or additional monies in respect of problems which would have been notified or requests which would have been made had this obligation been complied with.

6. PROVISION AND INTERPRETATION OF INFORMATION

- 6.1 Subject to Clause 10 (*Adverse Physical Conditions and Artificial Obstructions*), in respect of each Work Section the MUDFA Contractor shall have inspected and examined the Site and its surroundings and to have satisfied itself before the issue of the Work Order for that Work Section as to the nature of the ground, the sub-surface conditions and sub-soil (any information in connection therewith which may have been provided by or on behalf of **tie** being provided by way of information only without any warranty or representation as to its accuracy, reliability or completeness and **tie** shall not be liable for any use of or reliance on such information), the form and nature of the Site, the extent, nature and difficulty of the work and materials necessary for the completion of the MUDFA Works, the means of communication with and restrictions of access to the Site, the accommodation the MUDFA Contractor may require, and in general to have obtained for itself all necessary information as to risks, contingencies and all other circumstances influencing or affecting the MUDFA Works. The MUDFA Contractor shall not be entitled to any extension of time or to any additional payment on grounds of any misunderstanding or misinterpretation of any such matter, nor shall the MUDFA Contractor be released from any of the risks accepted or obligations undertaken by the MUDFA Contractor under the Agreement on the ground that the MUDFA Contractor did not or could not have foreseen any matter which might affect or have affected the execution of the MUDFA Works.
- 6.2 The MUDFA Contractor shall have:
- 6.2.1 based its tender on its own inspection and examination as aforesaid and on all information whether obtainable by it or made available by **tie**; and
 - 6.2.2 satisfied itself before submitting its tender as to the correctness and sufficiency of the rates and prices stated by it in the Bills of Quantities which shall (unless otherwise provided in the Agreement) cover all its obligations under the Agreement.

7. DEVELOPMENT, REVIEW, FINALISATION AND DELIVERY OF THE DELIVERABLES

- 7.1 The MUDFA Contractor shall develop and finalise the Deliverables in accordance with this Agreement, and **tie** shall be entitled to review the Deliverables in accordance with Schedule 5 (*Review Procedure*).
- 7.2 The MUDFA Contractor shall submit any changes and any other Deliverables associated with any changes developed pursuant to Clause 46 (*Changes*) to **tie's** Representative for review pursuant to Schedule 5 (*Review Procedure*).
- 7.3 It is **tie's** intention to establish and maintain an extranet which **tie's** Representative, **tie**, any **tie** Parties, the MUDFA Contractor, the SDS Provider and any other party reasonably required by **tie** may access remotely by computer (through an appropriate login/security regime) to view any Deliverables and electronically store and/or print copies of such Deliverables. The MUDFA Contractor shall provide the Deliverables to **tie** in a format which will enable **tie** to upload the Deliverables onto the extranet.
- 7.4 The MUDFA Contractor shall, as soon as reasonably practicable after the Effective Date, submit to **tie's** Representative a submittal programme setting out the order in which each Deliverable is to be submitted for review in accordance with the Review Procedure and the Programme for uploading the Deliverables on to the extranet in accordance with Clause 7.3. The MUDFA Contractor may, as necessary, update such programme and shall submit the same from time to time to **tie's** Representative so that **tie** has at least 10 Business Days' notice of any revision to the periods shown in the previous submittal programme and the MUDFA Contractor shall submit to **tie's** Representative five copies of each draft Deliverable in hard copy form and one copy in agreed soft copy form (as appropriate to the format of the deliverable) no later than the end of the period shown in the submittal programme for that Deliverable.
- 7.5 Where **tie's** Representative does not consider that **tie** will be able to comply with the periods specified in Schedule 5 (*Review Procedure*) for indicating 'no objection' status or the making of objections in relation to any Deliverable because of the volume of documents to be received in accordance with the submittal programme, **tie's** Representative may introduce an alternative timetable no more onerous upon the MUDFA Contractor than that shown on the submittal programme and the MUDFA Contractor shall comply with such alternative timetable. Provided that, where **tie** is unable to comply with the time periods set out in Schedule 5 (*Review Procedure*) and such inability is not due to any breach of this Agreement, omission or fault on the

part of the MUDFA Contractor, the introduction of an alternative timetable shall be treated as a **tie** Change and the terms of Clause 46 (*Changes*) shall apply.

- 7.6 The MUDFA Contractor shall allow **tie's** Representative, at any time, a reasonable opportunity to view any Deliverable at any stage of development, and this opportunity shall be made available to **tie's** Representative as soon as reasonably practicable following receipt of any written request from **tie's** Representative.
- 7.7 During the preparation of the Deliverables, **tie** and/or **tie's** Representative shall at its discretion be entitled to call for a meeting to discuss the development of any Deliverable, and the MUDFA Contractor shall give due consideration to any comments made by **tie** or **tie's** Representative at any such meetings. As soon as reasonably practicable following any such meeting, the MUDFA Contractor will prepare and circulate to those attending the meeting a report listing the Deliverables discussed and any comments made at such meeting.
- 7.8 If it should be found that any Deliverable does not fulfil the requirements of this Agreement or the needs of any Approval Bodies, the MUDFA Contractor shall at its own expense amend the Deliverable. Such amendment shall be made in accordance with Schedule 5 (*Review Procedure*) and such amendment and rectification shall ensure that the Deliverable shall satisfy the requirements of this Agreement and any Approval Bodies.
- 7.9 The MUDFA Contractor shall provide to **tie**, at no cost to **tie**, five copies of the agreed Deliverables in hard copy form and one copy in an agreed soft copy form (as appropriate to the format of the Deliverables).
- 7.10 In addition to the requirements of Clause 7.9, the MUDFA Contractor shall provide to **tie**, at no cost to **tie**, five copies in hard copy form and one copy in an agreed soft copy form of any as-built drawings and any manuals prepared.
- 7.11 In respect of any further copies of a particular Deliverable which **tie** may require, **tie** shall pay the MUDFA Contractor the reasonable copying charges or other reasonable charges for the provision of the same to **tie**.
- 7.12 The MUDFA Contractor accepts all risks arising from any conflicts, ambiguities, discrepancies, errors or omissions that subsequently appear within or between any of the Deliverables, and the MUDFA Contractor shall not be entitled to make any claim

against **tie** for an extension of time, payment or otherwise in respect of any rectification of such conflicts, ambiguities, discrepancies, errors or omissions.

7.13 The MUDFA Contractor shall within 3 Business Days notify **tie** upon becoming aware of any conflicts, ambiguities, discrepancies, errors or omissions within or between any of the Deliverables. Where there are any conflicts, ambiguities, discrepancies, errors or omissions, the MUDFA Contractor shall provide with any notification, its proposals for resolving such conflicts, ambiguities, discrepancies, errors or omissions in compliance with this Agreement. Such proposals could include the suggestion that no action is required. The MUDFA Contractor shall proceed with its proposals to resolve any such conflicts, ambiguities, discrepancies, errors or omissions as soon as reasonably practicable. If the proposal from the MUDFA Contractor is that no action is required or **tie** does not agree with the action proposed by the MUDFA Contractor, **tie** may notify the MUDFA Contractor, within 5 Business Days of the MUDFA Contractor's notice, to resolve any conflicts, ambiguities, discrepancies, errors or omissions in a different manner (which notification shall be binding on the MUDFA Contractor).

7.14 The MUDFA Contractor shall confirm with **tie** with regard to **tie's** requirements on the content and style of each Pre-Construction Deliverable before such Pre-Construction Deliverables are submitted to the Review Procedure.

7.15 The MUDFA Contractor shall ensure that all Deliverables comply with the document control requirements specified at paragraph 3.2.2 of Schedule 2 (*Technical Requirements*).

8. COMMENCEMENT OF PRE-CONSTRUCTION SERVICES, GATEWAY TO COMMENCEMENT OF THE CONSTRUCTION SERVICES AND CONSTRUCTION WORK AND ISSUE OF WORK ORDERS

8.1 The provision of the Pre-Construction Services, Risk Services and Stakeholder Services shall commence on the Effective Date, and the provision of these Pre-Construction Services, Risk Services and Stakeholder Services shall be carried out and completed in accordance with the terms of this Agreement.

8.2 The MUDFA Contractor shall within 3 Business Days notify **tie** when the MUDFA Contractor considers that it has completed each of the Pre-Construction Services to be carried out during the Pre-Construction Phase and that all matters to be agreed in respect of the Pre-Construction Services have been agreed between the MUDFA Contractor and **tie**. Without limitation, the MUDFA Contractor shall not serve such

notice until the Pre-Construction Deliverables have been approved in accordance with the Review Procedure.

- 8.3 If **tie** agrees that all of the Pre-Construction Services have been completed and/or the relevant matters agreed, **tie** shall issue a Pre-Construction Completion Certificate within 5 Business Days stating the date upon which **tie** considers the Pre-Construction Services were completed. Notwithstanding that a Pre-Construction Completion Certificate may have been issued by **tie**, the MUDFA Contractor shall not commence the Construction Works in respect of any Work Section until **tie** shall have confirmed such commencement by issue of the relevant Work Order Confirmation Notice in accordance with Clause 8.8.
- 8.4 To the extent that **tie** considers that any Pre-Construction Services have not been completed by the MUDFA Contractor and/or the relevant matters agreed, **tie** shall within 3 Business Days notify the MUDFA Contractor in writing accordingly, including details of the further activities to be carried out by the MUDFA Contractor in order to complete the Pre-Construction Services.
- 8.5 After receiving any notification from **tie** under Clause 8.4, the MUDFA Contractor shall within 3 Business Days re-notify **tie** when the MUDFA Contractor considers that it has completed each of the Pre-Construction Services to be carried out during the Pre-Construction Phase and that all matters to be agreed during the Pre-Construction Services have been agreed between the MUDFA Contractor and **tie**, and the provisions of Clauses 8.2 to 8.4 shall apply mutatis mutandis to such re-notification.
- 8.6 To the extent that some but not all of the Pre-Construction Services to be carried out during the Pre-Construction Phase have been completed and/or the relevant matters agreed, **tie** may, in its sole discretion, instruct the Construction Services to commence and/or issue Work Orders and Work Order Confirmation Notices in accordance with Clause 8.8 in respect of any Work Section and in such circumstances:
- 8.6.1 **tie** may direct that some or all of the works and/or services to be performed as part of the Construction Works (which shall include the provision of vehicles and accommodation in accordance with Schedule 1 (*Scope of Works and Services*)) shall be commenced following the issue of a Work Order Confirmation Notice;

8.6.2 **tie** may direct that some or all of the works and/or services to be performed as part of the Construction Services shall be commenced; and

8.6.3 the MUDFA Contractor shall continue to provide the Pre-Construction Services until (i) the relevant Pre-Construction Services have been completed, and (ii) all matters to be agreed in respect of the Pre-Construction Services have been agreed between the MUDFA Contractor and **tie**, or until **tie** otherwise directs.

PROVIDED ALWAYS that **tie** shall not issue a Pre-Construction Completion Certificate in respect of the Pre-Construction Services until all of the Pre-Construction Services have been completed and/or the relevant matters agreed.

8.7 Unless instructed in accordance with Clause 8.6 or otherwise by **tie**, the MUDFA Contractor shall commence the Construction Services immediately following the issue of the first Work Order Confirmation Notice.

8.8 Before the MUDFA Contractor is permitted by **tie** to commence carrying out the Construction Works (which shall include the provision of vehicles and accommodation in accordance with Schedule 1 (*Scope of Works and Services*)) in any Work Section, the following procedure shall be followed (unless expressly varied by **tie** in writing):

8.8.1 **tie** shall issue a Work Order in accordance with the Programme and each Work Order shall include the Work Order Requirements;

8.8.2 within 10 Business Days (or such other period as **tie**, acting reasonably, may expressly agree in writing) of the receipt of any Works Order, the MUDFA contractor shall submit a Work Order Proposal (which shall take account of any agreed **tie** Changes);

8.8.3 within 5 Business Days of the receipt of any Work Order Proposal, **tie** shall either:

8.8.3.1 confirm the relevant Work Order by issuing a Work Order Confirmation Notice; or

8.8.3.2 withdraw the Work Order; or

8.8.3.3 discuss the issues set out in the Work Order Proposal. From such discussions, **tie** may modify its original Work Order and, if required by **tie**, the MUDFA Contractor shall submit an amended Work Order Proposal within 3 Business Days. The provisions of this Clause 8.8.3 shall be reapplied until the relevant Work Order is either confirmed or withdrawn by **tie**.

8.9 In respect of each Work Section, the Work Order Requirements shall, as required in the context of each Work Order and subject to Clause 8.11, include:

- 8.9.1 the scope and description of the works, services and supplies required from the MUDFA Contractor;
- 8.9.2 the design and drawings for the required works;
- 8.9.3 any additional requirements including any requirements in relation to specification, reinstatement (whether temporary or permanent), quality control and testing and commissioning in addition or as an alternative to the requirements set out in Schedule 3 (*Specification*);
- 8.9.4 any additional requirements from the Utilities including any requirements for liaison in respect of any enabling works and/or any Utilities Works;
- 8.9.5 any additional requirements from any third party affected by the proposed works;
- 8.9.6 the required Land Consents;
- 8.9.7 any additional programme constraints;
- 8.9.8 any additional construction constraints including any amendments to Schedule 2 (*Technical Requirements*);
- 8.9.9 the pre-construction health and safety plan and instructions from the planning supervisor;
- 8.9.10 any requirements or additional requirements for site establishment, accommodation and vehicles or other mobilisation activities; and
- 8.9.11 a request for an update to the relevant part of the Anticipated Final Account and any additional requirements for pricing.

- 8.10 In respect of each Work Section, each Work Order Proposal shall respond to the relevant Work Order and, subject to Clause 8.11, include the following information (unless the MUDFA Contractor is expressly instructed to the contrary by **tie**):
- 8.10.1 the MUDFA Contractor's risk assessments and method statements which respond to the health and safety and quality plans prepared for the MUDFA Works;
 - 8.10.2 a Work Section Programme and any other relevant programme information;
 - 8.10.3 updated costs with regard to the relevant part of the Anticipated Final Account;
 - 8.10.4 all necessary information as specified in Schedule 2 (*Technical Requirements*) including any relevant Access Permit Forms;
 - 8.10.5 the Consents which the MUDFA Contractor needs to obtain in order to carry out the required Works Order;
 - 8.10.6 any comment on the content of the Work Order, or any issues arising therefrom; and
 - 8.10.7 any other necessary details and supporting information to enable **tie** to issue a Work Order Confirmation Notice.
- 8.11 Where any of the information forming part of any Works Order and/or Works Order Proposal has been previously submitted during the Pre-Construction Phase, **tie** or the MUDFA Contractor (as appropriate) shall confirm that such information is still valid.
- 8.12 The MUDFA Contractor shall give adequate notice in writing to **tie's** Representative of any further information or instruction that the MUDFA Contractor may require for the construction and completion of the MUDFA Works in respect of each Work Section.

9. LAND CONSENTS AND POSSESSION OF SITE AND ACCESS

- 9.1 In respect of each Work Section, **tie** shall from time to time prescribe:
- 9.1.1 the extent of portions of the Site of which the MUDFA Contractor is to be given possession;

- 9.1.2 the order in which such portions of the Site shall be made available to the MUDFA Contractor;
- 9.1.3 the availability and the nature of the access which is to be provided by **tie**; or
- 9.1.4 the order in which the MUDFA Works shall be constructed.
- 9.2 As part of each Work Order and subject to Clause 9.1, **tie** shall provide the MUDFA Contractor with all Land Consents which **tie** believes are necessary in order for the MUDFA Contractor to carry out and complete the MUDFA Works in the relevant Work Section.
- 9.3 The MUDFA Contractor shall notify **tie** as soon as reasonably practicable on becoming aware of any new Land Consents which may be required in order to carry out and complete the MUDFA Works.
- 9.4 As required by **tie**, the MUDFA Contractor shall use reasonable endeavours to assist **tie** to obtain any Land Consents, any amendments to existing Land Consents and any new Land Consents including providing works programmes, providing any relevant information, and notifying land owners. Any reasonable costs associated with assisting **tie** shall be paid by **tie** to the MUDFA Contractor.
- 9.5 The MUDFA Contractor warrants that it shall not breach the terms of any Land Consent. In respect of each Work Section, if the MUDFA Contractor breaches any term of any Land Consent and/or does not complete its works in accordance with the programme for that Work Section and within the time specified within any Land Consent (subject to any extension of time awarded by **tie** in accordance with Clause 38 (*Extension of Time for Completion*) which is directly relevant to such Land Consent and/or the associated Work Order), the MUDFA Contractor shall be required to seek any amendment to the existing Land Consent or new Land Consent which may be required in order to carry out and complete the MUDFA Works in the relevant Work Section. In the circumstances where a breach of the Land Consent has arisen because of the breach of this Agreement by the MUDFA Contractor or a wilful act or wilful omission by the MUDFA Contractor, the MUDFA Contractor shall not be entitled to apply for an extension of time or any payment. If the MUDFA Contractor does not obtain the required amendment or new Land Consent, **tie** shall recover the costs from the MUDFA Contractor which are associated with **tie** obtaining such amendment or new Land Consent.

- 9.6 The MUDFA Contractor acknowledges that **tie** and/or CEC have entered into agreements with third parties with regard to land access and other issues.
- 9.7 The MUDFA Contractor shall comply with Schedule 13 (*Third Party Agreements*) and the MUDFA Contractor warrants that it shall not breach the terms of Schedule 13 (*Third Party Agreements*).
- 9.8 If the MUDFA Contractor suffers delay from failure on the part of **tie** to give possession or access in accordance with the terms of this Clause 9 (*Land Consents and Possession of Site and Access*) **tie's** Representative shall take such delay into account in determining any extension of time to which the MUDFA Contractor is entitled under Clause 38 (*Extension of Time for Completion*) and the MUDFA Contractor shall be paid in accordance with Clause 49 (*Payment*) the amount of any direct cost as may be reasonable except to the extent that such delay and/or extra cost result from the MUDFA Contractor's default or result from the MUDFA Contractor's failure to use its best efforts to minimise the consequences, in terms of delay, of the relevant failure.
- 9.9 The MUDFA Contractor shall bear all costs and charges for any access required by it in addition to those provided by **tie**. The MUDFA Contractor shall also provide at its own cost any additional facilities outside the Site required by it for the purposes of the MUDFA Works.

10. ADVERSE PHYSICAL CONDITIONS AND ARTIFICIAL OBSTRUCTIONS

- 10.1 If during the carrying out of the MUDFA Works, the MUDFA Contractor encounters adverse physical conditions or artificial obstructions (including concrete, reinforced concrete, soft spots, tram track and associated infrastructure and unidentified apparatus), the MUDFA Contractor shall as early as practicable give written notice thereof to **tie**.
- 10.2 When giving written notice in accordance with Clause 10.1, the MUDFA Contractor shall give details of any anticipated effects of the adverse physical condition or artificial obstruction, the measures it has taken, is taking or is proposing to take, the associated estimated costs and the extent of the anticipated delay in or interference with the carrying out of the MUDFA Works.
- 10.3 **tie's** Representative shall:

- 10.3.1 require the MUDFA Contractor to investigate and report upon the practicality, cost and timing of alternative measures which may be available; and/or
 - 10.3.2 give written consent to the measures notified by the MUDFA Contractor under Clause 10.2 with or without modification; and/or
 - 10.3.3 give written instructions as to how the adverse physical condition or artificial obstructions are to be dealt with; and/or
 - 10.3.4 order a suspension under Clause 36 (*Suspension of Work*) or a variation under Clause 46 (*Changes*).
- 10.4 Notwithstanding the provisions of Clause 6 (*Provision and Interpretation of Information*), the risk of encountering adverse physical conditions and artificial obstructions during the course of the execution of the MUDFA Works shall not be borne by the MUDFA Contractor, and the MUDFA Contractor shall be able to make a claim for an extension of time under Clause 38.1 and additional payment for any reasonable, demonstrable and direct additional costs incurred in relation to such adverse physical conditions and artificial obstructions provided that:
- 10.4.1 the MUDFA Contractor demonstrates to the reasonable satisfaction of **tie's** Representative that the MUDFA Contractor has used its best endeavours to adjust the order and sequence in which the MUDFA Contractor proposes to execute the MUDFA Works in order to minimise the effects of the delay in, or if possible to avoid altogether any delay in, the progress by the MUDFA Contractor of the MUDFA Works; and
 - 10.4.2 such conditions and/or obstructions could not, in the opinion of **tie's** Representative (acting reasonably), reasonably have been foreseen by an experienced contractor; and
 - 10.4.3 the MUDFA Contractor demonstrates to the reasonable satisfaction of **tie's** Representative that the MUDFA Contractor has used its best endeavours to minimise and mitigate any extra costs incurred in relation to such adverse physical conditions and artificial obstructions ; and
 - 10.4.4 the MUDFA Contractor demonstrates to the reasonable satisfaction of **tie's** Representative that any extra costs incurred were not already included within the resources, rates and prices included within the tender total submitted by

the MUDFA Contractor as part of the procurement competition in relation to this Agreement and all inputs to the Bills of Quantities; and

10.4.5 the MUDFA Contractor demonstrates to the reasonable satisfaction of **tie's** Representative that any claim for additional time relates to timing implications which exceed those that were contained within the final tender programme submitted by the MUDFA Contractor before the Effective Date as part of the procurement competition in relation to this Agreement, including the productivity allowances and periods which have already been made to take account of adverse physical conditions and artificial obstructions which might affect the regular progress of the MUDFA Works.

10.5 The value of any costs claimed by the MUDFA Contractor in accordance with Clause 10.4 shall be determined in accordance with Clause 46.5.

11. SPECIAL REQUIREMENTS IN RELATION TO STATUTORY AND/OR OTHER BODIES

11.1 The MUDFA Contractor shall consult with any statutory parties affected by the MUDFA Works and shall comply with the special requirements of any such statutory parties affected by the MUDFA Works which parties may include:

11.1.1 Scottish Environment Protection Agency;

11.1.2 Coal Authority;

11.1.3 Historic Scotland;

11.1.4 Scottish Natural Heritage;

11.1.5 BAA;

11.1.6 Network Rail; and

11.1.7 The Scottish Executive Rural Affairs Department.

11.2 The MUDFA Contractor shall liaise with the relevant statutory parties to ensure that the MUDFA Contractor has obtained these Special Requirements as updated and amended from time to time.

11.3 Compliance with such Special Requirements by the MUDFA Contractor shall not relieve the MUDFA Contractor of any of its obligations and liabilities under the

Agreement and fulfilment of such other obligations and liabilities shall not relieve the MUDFA Contractor of its responsibilities to comply with the said Special Requirements.

- 11.4 The reasonable costs of compliance by the MUDFA Contractor with any Special Requirements shall be paid by **tie** in accordance with Clause 49 (*Payment*) subject to the MUDFA Contractor having sought **tie's** approval prior to incurring any such costs.

12. SUB-CONTRACTING

- 12.1 The MUDFA Contractor shall not sub-contract the whole of the MUDFA Works.
- 12.2 Subject to Clauses 12.3 and 12.4, the MUDFA Contractor may sub-contract part of the MUDFA Works with the prior written approval of **tie**, to a sub-contractor, supplier, sub-consultant, specialist and/or other party for performance of that specific part of the MUDFA Works. **tie's** approval shall be given without delay and not unreasonably withheld.
- 12.3 Except in relation to Utility Specialist Contractors, the MUDFA Contractor shall supply all relevant information (including curriculum vitae, financial and legal information, information on relevant experience and technical capacity, insurance details and the methodology for provision of the sub-let works) required by **tie** to enable a decision to be made by **tie** on the suitability of the proposed sub-contractor, supplier, sub-consultant, specialist and/or other party to perform the relevant part of the MUDFA Works. **tie's** decision on the use of any sub-contractor, supplier, sub-consultant, specialist and/or other party shall be final, but shall not be unreasonably withheld.
- 12.4 The form of sub-contract for any work which is to be sub-contracted is to be approved by **tie**, and before **tie** gives its consent to the proposed sub-contracting (and as a condition precedent to such consent) **tie** shall be entitled to require the proposed sub-contract to be approved by it in its final form. Provided, however, that such sub-contract shall in any event:
- 12.4.1 incorporate all relevant conditions of this Agreement including Schedule 9 (*Dispute Resolution Procedure*);
- 12.4.2 procure compliance with Schedule 2 (*Technical Requirements*);

- 12.4.3 provide that the sub-contractor shall provide the collateral warranties referred to in Clause 12.8;
- 12.4.4 require the sub-contractor to provide through the MUDFA Contractor to **tie's** Representative at the proper time consistent with the Programme such information of every type and description as the sub-contractor has undertaken to provide and as are reasonably necessary and in sufficient detail to enable the MUDFA Works to be completed in accordance with the Agreement; and
- 12.4.5 require the sub-contractor to comply with all programme requirements which are relevant for the timely execution of the part of the MUDFA Works to be carried out under the said sub-contract.
- 12.5 The MUDFA Contractor shall and shall procure that every Sub-Contractor shall, provide and employ in connection with the execution of the MUDFA Works:
- 12.5.1 only such technical assistants as are skilled and experienced in their respective occupations and such sub-agents, foremen and leading hands as are competent to give proper supervision to the work they are required to supervise; and
- 12.5.2 such skilled, semi-skilled and unskilled labour as is necessary for the proper and timely execution of the MUDFA Works.
- 12.6 The MUDFA Contractor shall use its best endeavours to enter into a sub-contract (in accordance with the provisions set out in Clause 12.4) with each of the Utility Specialist Contractors to procure that each of the Utility Specialist Contractors carry out and complete the relevant activities which are described in Part 4 of Schedule 1 (*Scope of Works and Services*) or any activities which are identified in Clause 3.14, in accordance with the terms of this Agreement.
- 12.7 Notwithstanding the provisions of paragraph 6 of Schedule 2 (*Technical Requirements*), **tie's** Representative shall be at liberty after due warning in writing to require the MUDFA Contractor to remove from the MUDFA Works any Sub-Contractor who mis-conducts itself or is incompetent or negligent in the performance of its duties or fails to conform with any particular provisions with regard to safety which may be set out in the Agreement or persists in any conduct which is prejudicial

to safety or health and such Sub-Contractor shall not be again employed upon the MUDFA Works without the permission of **tie's** Representative.

12.8 The MUDFA Contractor shall procure that Doocey Limited, and shall use reasonable endeavours to procure that every other Sub-Contractor shall, within 10 Business Days of any request by **tie**, provide to **tie** a collateral warranty:

12.8.1 in favour of **tie** in the form set out in Schedule 6 (*Sub-Contractor Collateral Warranty*) with only such amendments as **tie** may approve; and/or

12.8.2 in favour of CEC, Transport Scotland, TEL, Network Rail and the Utilities in the form set out Schedule 6 (*Sub-Contractor Collateral Warranty*) or where such form is not acceptable, in a different form which is acceptable to both Parties (acting reasonably)

12.9 The MUDFA Contractor shall be and shall remain wholly liable to **tie** under this Agreement for carrying out and completing the MUDFA Works including any part of the MUDFA Works carried out by any Sub-Contractor.

13. TIE'S REPRESENTATIVE

13.1 Subject to Clause 13.2, **tie's** Representative may exercise the authority specified in the Agreement. **tie's** Representative shall:

13.1.1 be responsible for the day to day supervision of the MUDFA Works to be performed by the MUDFA Contractor;

13.1.2 exercise such functions and powers of **tie** under this Agreement as **tie** may notify to the MUDFA Contractor from time to time; and

13.1.3 be the primary point of contact for the MUDFA Contractor with **tie**;

and the MUDFA Contractor shall observe, and shall procure that any MUDFA Contractor Parties observe, all reasonable instructions of **tie** and **tie's** Representative in relation to this Agreement. The MUDFA Contractor shall not and shall procure that any MUDFA Contractor Parties shall not act upon any instruction from any other party unless confirmed by **tie** or **tie's** Representative in writing. If the MUDFA Contractor or any MUDFA Contractor Parties shall receive any such instructions, the MUDFA Contractor shall notify **tie** or **tie's** Representative immediately.

- 13.2 **tie** may by notice in writing to the MUDFA Contractor from time to time, restrict the authority of **tie's** Representative and/or require **tie's** Representative to obtain the specific approval of **tie** before exercising any such authority. In the event of such restriction or requirement, the MUDFA Contractor shall look to **tie** to exercise the relevant authority or to confirm that **tie** has given the relevant approval.
- 13.3 Except as expressly stated in the Agreement, **tie's** Representative shall have no authority to amend the Agreement nor to relieve the MUDFA Contractor of any of its obligations under the Agreement.
- 13.4 **tie** may by notice in writing to the MUDFA Contractor change the identity of **tie's** Representative. **tie** shall consult with the MUDFA Contractor prior to the appointment of any replacement for **tie's** Representative, taking account of the need for liaison and continuity in respect of this Agreement. Such change shall have effect on the date specified in the written notice.
- 13.5 During any period when a **tie's** Representative has not been appointed (or when **tie's** Representative is unable through illness, incapacity or any other reason whatsoever to carry out or exercise his functions under this Agreement), **tie** shall carry out the functions which would otherwise be performed by **tie's** Representative.
- 13.6 No decision, act or omission of **tie** or **tie's** Representative shall, except as otherwise expressly provided in this Agreement:
- 13.6.1 in any way relieve or absolve the MUDFA Contractor from, modify, or act as a waiver or personal bar of, any liability, responsibility, obligation or duty under this Agreement;
- 13.6.2 in the absence of an express written instruction or authorisation issued by **tie** under Clause 46 (*Changes*) constitute or authorise a variation; or
- 13.6.3 be construed as restricting or binding **tie** in any way save with regard to the specific project matters to which it relates.
- 13.7 Where **tie's** Representative is not a single named individual, **tie's** Representative shall within 7 days of the Effective Date notify to the MUDFA Contractor in writing the name of the individual who will act on its behalf and assume the full responsibilities of **tie's** Representative under the Agreement. **tie's** Representative shall thereafter in like manner notify the MUDFA Contractor of any replacement of the named individual.

13.8 **tie's** Representative may from time to time delegate any of the duties and authorities vested in **tie's** Representative, and **tie's** Representative may at any time revoke such delegation. Any such delegation:

13.8.1 shall be in writing and shall not take effect until such time as a copy thereof has been delivered to the MUDFA Contractor or the MUDFA Contractor's Representative; and

13.8.2 shall continue in force until such time as **tie's** Representative shall notify the MUDFA Contractor in writing that the same has been revoked.

13.9 Instructions given by **tie's** Representative or by any person exercising delegated duties and authorities under Clause 13.8 shall be in writing. Provided that if for any reason it is considered necessary to give any such instruction orally the MUDFA Contractor shall comply therewith.

13.10 Any such oral instruction shall be confirmed in writing as soon as is possible under the circumstances. Provided that if the MUDFA Contractor confirms in writing any such oral instruction which confirmation is not contradicted in writing by **tie's** Representative forthwith it shall be deemed to be an instruction in writing by **tie's** Representative.

13.11 Upon the written request of the MUDFA Contractor, **tie's** Representative or the person exercising delegated duties or authorities under Clause 13.8 shall specify in writing under which of his duties and authorities the instruction is given.

14. WORK TO BE TO SATISFACTION OF TIE

14.1 The MUDFA Contractor shall construct and complete the MUDFA Works in strict accordance with the Agreement to the satisfaction of **tie** (acting reasonably) and shall comply with and adhere strictly to **tie** and **tie's** Representative's instructions on any matter connected therewith (whether mentioned in the Agreement or not). The MUDFA Contractor shall take instructions only from **tie**, **tie's** Representative or, subject to Clause 13.8, from **tie's** Representative's duly appointed delegate.

14.2 The materials, MUDFA Contractor's Equipment and labour to be provided by the MUDFA Contractor under Clause 2 (*Contractor's General Responsibility*) and the mode, manner and speed of construction of the MUDFA Works are to be of a kind and conducted in a manner acceptable to **tie's** Representative (acting reasonably).

14.3 If in pursuance of Clause 5 (*Documents Mutually Explanatory*) or Clause 14.1, **tie's** Representative shall issue instructions which involve the MUDFA Contractor in delay or disrupt its arrangements or methods of construction so as to cause the MUDFA Contractor to incur cost beyond that reasonably to have been foreseen by an experienced contractor then **tie's** Representative shall take such delay into account in determining any extension of time to which the MUDFA Contractor is entitled under Clause 38 (*Extension of Time for Completion*) and the MUDFA Contractor shall be paid in accordance with Clause 49 (*Payment*) the amount of any direct cost as may be reasonable except to the extent that such delay and/or extra cost result from the MUDFA Contractor's default or result from the MUDFA Contractor's failure to use reasonable endeavours to minimise the consequences, in terms of cost or delay, of the relevant instruction. If such instructions require any variation to any part of the MUDFA Works, the same shall be deemed to have been given pursuant to Clause 46 (*Changes*).

15. MUDFA CONTRACTOR'S SUPERINTENDENCE AND KEY PERSONNEL

15.1 The MUDFA Contractor shall provide all necessary superintendence during the construction and completion of, and the rectification of any defects in, the MUDFA Works . Such superintendence shall be given by sufficient persons having adequate knowledge of the operations to be carried out (including the methods and techniques required, the hazards likely to be encountered and methods of preventing accidents) for the satisfactory and safe construction of the MUDFA Works.

15.2 The MUDFA Contractor's senior representative on the Site ("**MUDFA Contractor's Representative**") must be approved by **tie**, for which purpose the MUDFA Contractor shall first provide **tie** with full details of the experience and qualifications of the MUDFA Contractor's Representative.

15.3 The MUDFA Contractor shall ensure that, so long as the MUDFA Contractor's Representative remains an employee or servant of the MUDFA Contractor and is not incapacitated by illness or otherwise nor absent in consequence of his reasonable holiday entitlement, the MUDFA Contractor's Representative shall undertake overall supervision of the MUDFA Works for whatever time may be required to ensure the completion of the MUDFA Works in accordance with the Agreement. The MUDFA Contractor's Representative shall be responsible for the safety of all MUDFA Works.

15.4 The MUDFA Contractor's Representative shall:

- 15.4.1 act as the principal point of contact for **tie**, and **tie's** Representative in relation to all matters related to this Agreement;
- 15.4.2 have full authority to act on behalf of the MUDFA Contractor for all purposes of this Agreement, and **tie** and **tie's** Representative shall be entitled to treat all instructions and directions of the MUDFA Contractor's Representative as those of the MUDFA Contractor; and
- 15.4.3 manage and co-ordinate the provision of the MUDFA Works by the MUDFA Contractor (and any Sub-Contractor) and the integration of provision of the MUDFA Works with the tasks being performed by **tie's** internal team and the other advisers and contractors appointed by **tie**.
- 15.5 The MUDFA Contractor's Representative shall not be changed by the MUDFA Contractor without the consent of **tie** to such change (which consent shall not be unreasonably withheld or delayed) and the MUDFA Contractor shall provide **tie's** Representative with full details of the experience and qualifications of the proposed substitute MUDFA Contractor's Representative. The MUDFA Contractor shall take account of the need for liaison and continuity in respect of the provision of the MUDFA Works in accordance with the Programme when any change is proposed.
- 15.6 The MUDFA Contractor shall also nominate a deputy to the MUDFA Contractor's Representative. During any period when the MUDFA Contractor's Representative is unable through illness, incapacity, annual leave or any other reason whatsoever to carry out or exercise his functions under this Agreement, such deputy shall carry out the functions which would otherwise be performed by the MUDFA Contractor's Representative.
- 15.7 **tie** may at any time request the removal from the MUDFA Works of the MUDFA Contractor's Representative or his deputy for reasons of incompetence or inefficiency and request the prompt appointment of a satisfactory substitute, approved by **tie** pursuant to Clause 15.5.
- 15.8 Any costs incurred by the MUDFA Contractor in replacing the MUDFA Contractor's Representative (in any circumstances) shall be borne by the MUDFA Contractor.
- 15.9 The MUDFA Contractor shall ensure that the Key Personnel shall have day-to-day responsibility for and be involved in the performance of the MUDFA Works.

15.10 The MUDFA Contractor shall locate staff at such locations as the MUDFA Contractor considers convenient for the MUDFA Works, provided that:

15.10.1 the MUDFA Contractor acknowledges that it will not be entitled to any reimbursement from **tie** in relation to the travel of any person to or from Edinburgh, or for the accommodation or subsistence of any person visiting Edinburgh; and

15.10.2 **tie** will require the MUDFA Contractor to make the Key Personnel available for meetings in Edinburgh at such times as **tie** may, in its sole discretion, direct;

15.11 The MUDFA Contractor shall ensure that there are no changes to the Key Personnel without **tie's** prior written consent (such consent not to be unreasonably withheld or delayed in the case of a change necessitated by sickness or reasonable annual, maternity, paternity or compassionate leave or where one of the Key Personnel's employment ceases) and that any replacement persons shall be of at least equivalent status and ability to the person whom they replace.

15.12 The MUDFA Contractor shall use all reasonable endeavours to ensure the continuity of the personnel assigned to perform the MUDFA Works and shall select Key Personnel having careful regard to those persons' existing work load and other planned commitments.

15.13 The MUDFA Contractor shall ensure that its Key Personnel shall:

15.13.1 have the level of skill, experience and authority appropriate to (i) the MUDFA Works to which such staff are allocated, and (ii) the standards to be achieved pursuant to this Agreement; and

15.13.2 receive such training and supervision as is necessary to ensure the proper performance of this Agreement and compliance with all regulatory requirements appropriate to and required for the performance of the MUDFA Works in accordance with this Agreement.

15.14 All Key Personnel should have a nominated deputy who shall be capable of fulfilling the duties of the person to whom they are deputising in the event of their absence and who shall be kept fully informed of project status in the relevant area.

15.15 The MUDFA Contractor shall not, during the period of this Agreement, contract or retain as an adviser or consultant, any person currently or previously employed or engaged as appropriate in the previous 3 months by **tie** unless the prior written approval of **tie** has been obtained.

15.16 The MUDFA Contractor shall (and shall procure that the Key Personnel, its staff employed in the performance of the MUDFA Works and the Sub-Contractors) comply with all regulatory requirements appropriate to and required for the performance of the MUDFA Works, **tie's** Drug and Alcohol Policy and any rules, regulations and instructions from **tie's** Representative.

16. REMOVAL OF MUDFA CONTRACTOR'S EMPLOYEES

16.1 The MUDFA Contractor shall employ or cause to be employed in and about the construction and completion of the MUDFA Works and in the superintendence thereof only persons who are careful, skilled and experienced in their several trades and callings. The MUDFA Contractor shall ensure that its site supervisors and operatives who are involved in carrying out the MUDFA Works shall have CSCS (or equivalent) certification.

16.2 Notwithstanding the provisions of paragraph 6 of Schedule 2 (*Technical Requirements*), **tie's** Representative shall be at liberty to object to and require the MUDFA Contractor to remove or cause to be removed from the MUDFA Works any person employed thereon who in the opinion of **tie's** Representative mis-conducts himself or is incompetent or negligent in the performance of his duties or fails to conform with any particular provisions with regard to safety which may be set out in the Agreement or persists in any conduct which is prejudicial to safety or health, and such persons shall not be again employed upon the MUDFA Works without the permission of **tie's** Representative.

16.3 Any costs incurred by the MUDFA Contractor in removing, or causing to be removed, a person in accordance with this Clause 16 (*Removal of MUDFA Contractor's Employees*) shall be borne by the MUDFA Contractor.

17. SETTING-OUT

17.1 The MUDFA Contractor shall be responsible for the true and proper setting-out of the MUDFA Works and for the correctness of the position, levels, dimensions and

alignment of all parts of the MUDFA Works and for the provision of all necessary instruments, appliances and labour in connection therewith.

17.2 If at any time during the progress of the MUDFA Works, any error shall appear or arise in the position, levels, dimensions or alignment of any part of the MUDFA Works, the MUDFA Contractor, on being required so to do by **tie's** Representative, shall at its own cost rectify such error to the satisfaction of **tie's** Representative unless such error is based on incorrect data supplied in writing by **tie's** Representative and/or where such error is not caused by any breach of this Agreement by the MUDFA Contractor in either case the cost of rectifying the same shall be borne by **tie**.

17.3 The checking of any setting out or of any line or level by **tie's** Representative shall not in any way relieve the MUDFA Contractor of its responsibility for the correctness thereof and the MUDFA Contractor shall carefully protect and preserve all benchmarks, sight rails, pegs and other things used in setting out the MUDFA Works.

18. BOREHOLES AND EXPLORATORY EXCAVATION

18.1 If at any time during MUDFA Works, **tie's** Representative shall require the MUDFA Contractor to make boreholes or to carry out exploratory excavation, such requirement shall be ordered in writing and shall be deemed to be a variation under Clause 46 (*Changes*) unless a Provisional Sum or Prime Cost Item in respect of such anticipated work shall have been included in the Bills of Quantities.

19. SAFETY AND SECURITY

19.1 The MUDFA Contractor shall throughout the progress of the MUDFA Works have full regard for the safety of all persons entitled to be upon the Site and shall keep the Site (so far as the same is under its control) and the MUDFA Works in an orderly state appropriate to the avoidance of danger to such persons.

19.2 The MUDFA Contractor shall among other things in connection with the MUDFA Works provide and maintain at its own cost all lights, guards, fencing, warning signs and watching when and where necessary or required by **tie's** Representative or required in accordance with Schedule 2 (*Technical Requirements*) or by any statutory or other competent authority for the protection of the MUDFA Works or for the safety and convenience of the public or others.

- 19.3 Without prejudice to Clause 2.3.6, the MUDFA Contractor shall comply with, and shall procure that its employees, agents shall comply with, and shall use reasonable endeavours to procure that others on the Site shall comply with, all their respective duties and obligations under all legislation and other requirements having the force of law relating to the health, safety and conduct of construction operations.
- 19.4 **tie** requires the MUDFA Contractor to undertake instruction and training, and provide and issue passes for the admission of any person having business on the Site, including persons who are not employees of the MUDFA Contractor or any Sub-Contractor, to the Site or to any part thereof as specified in Schedule 2 (*Technical Requirements*). In such event any person who fails to show his pass on demand to any duly authorised employee or agent of the MUDFA Contractor or **tie** may be refused admission or asked to vacate the Site. The MUDFA Contractor shall procure the return of any pass so used at any time on the demand of **tie** or on the cessation of the bearer's employment on the MUDFA Works.
- 19.5 Passes and the procedure for their use shall be subject to **tie's** approval (which shall not be unreasonably withheld or delayed) and requirements which may be varied from time to time.
- 19.6 If required by **tie**, the MUDFA Contractor shall submit a list of the names of all workers requiring passes, together with two photographs of each person and shall satisfy **tie** of their identity before passes are issued.
- 19.7 Except with the written permission of **tie** to be given when necessary for the execution of the MUDFA Works and subject to such terms as may be imposed, the employees of the MUDFA Contractor and any Sub-Contractor shall not be permitted to enter any part of the Site under the control of other contractors or of **tie** or any other owner, and the MUDFA Contractor shall warn its employees and Sub-Contractors that any person found within those areas without such authority, is liable to be removed from the MUDFA Works.
- 19.8 The MUDFA Contractor shall ensure that its employees, Sub-Contractors, agents are confined to, and shall use reasonable endeavours to ensure that others on the Site are confined to, only that portion of the Site necessary to enable them to carry out the MUDFA Works.

19.9 The MUDFA Contractor shall ensure that the MUDFA Works and any part of the Site (including any Work Site) upon which the MUDFA Works are being carried out shall be kept secure at all times.

20. ADMISSION TO SITE

20.1 The MUDFA Contractor shall take all reasonable steps to prevent unauthorised persons being admitted to any part of the Site (including any Work Site) upon which the MUDFA Works are being carried out. If **tie** gives the MUDFA Contractor notice that any person is not to be admitted to such part of the Site, the MUDFA Contractor shall take all practicable steps to prevent that person being admitted.

20.2 If and when instructed by **tie**, the MUDFA Contractor shall give to **tie** a list of names of all persons who are or may be at any time concerned with the MUDFA Works or any part thereof, specifying the capacities in which they are so concerned.

21. CARE OF THE WORKS

21.1 The MUDFA Contractor shall save as in Clause 21.2 take responsibility for the care of the MUDFA Works, the Apparatus, and any materials, plant and equipment for incorporation within the MUDFA Works from the Effective Date until the date of issue of the last Certificate of Substantial Completion, when the responsibility for the said care shall pass, as appropriate, to **tie** or to a Utility in the event that such Utility is carrying out any Utilities Works.

21.2 When **tie's** Representative issues a Certificate of Substantial Completion for any Work Sector or part thereof, the MUDFA Contractor shall cease to be responsible for the care of that Work Sector or part thereof and the Apparatus situated therein from the date of issue of that Certificate of Substantial Completion and the responsibility for the care of that Work Sector or part thereof shall pass, as appropriate, to **tie** or to a Utility in the event that such Utility is carrying out any Utilities Works.

21.3 Notwithstanding that any Utilities Works are being carried out at the same time as the MUDFA Works, the MUDFA Contractor's responsibilities for the care of the MUDFA Works, the Apparatus and any materials, plant and equipment for incorporation within the MUDFA Works, shall continue subject to Clauses 21.1 and 21.2.

21.4 The MUDFA Contractor shall take full responsibility for the care of any work and materials, plant and equipment for incorporation therein which the MUDFA

Contractor undertakes during the Defects Correction Period until such work has been completed.

21.5 In the event of any loss or damage to:

21.5.1 any Apparatus or the MUDFA Works or part thereof; or

21.5.2 any materials, plant or equipment for incorporation therein;

while the MUDFA Contractor is responsible for the care thereof, the MUDFA Contractor shall at its own cost rectify such loss or damage so that the MUDFA Works conform in every respect with the provisions of the Agreement (where relevant) and **tie's** Representative's instructions. The MUDFA Contractor shall also be liable for any loss or damage to the MUDFA Works and any Apparatus occasioned by the MUDFA Contractor and/or any MUDFA Contractor Parties in the course of any operations carried out by the MUDFA Contractor and/or any MUDFA Contractor Parties for the purpose of complying with the MUDFA Contractor's obligations under Clauses 41 (*Work Outstanding*) and 42 (*Contractor to Search*).

22. PROTESTOR ACTION

22.1 The MUDFA Contractor shall take whatever action and measures as are agreed with **tie** to protect the MUDFA Works from Protestor Action. The MUDFA Contractor shall be entitled to payment by **tie** of any additional reasonable costs incurred in implementing **tie's** instructions.

22.2 The MUDFA Contractor shall be responsible for repairing, reinstating or making good any damage to property (including the MUDFA Works and any Apparatus) on the Site or the personal injury or death suffered by the MUDFA Contractor or any MUDFA Contractor Party while on the Site which is directly caused by or directly results from Protestor Action and the MUDFA Contractor shall be paid by **tie** in accordance with Clause 49 (*Payment*) the amount of any direct and demonstrable costs as may be reasonable except to the extent that such extra costs result from the MUDFA Contractor's default or result from the MUDFA Contractor's failure to use reasonable endeavours to minimise the consequences, in terms of cost of the Protestor Action.

23. GIVING OF NOTICES, PAYMENT OF FEES AND CONSENTS

- 23.1 Except where otherwise provided in the Agreement, the MUDFA Contractor shall give all notices and pay all fees required to be given or paid by any Act of Parliament or any Regulation or Bye-law of any local or other statutory authority in relation to the construction and completion of the MUDFA Works and by the rules and regulations of all public bodies and companies whose property or rights are or may be affected in any way by the MUDFA Works.
- 23.2 The MUDFA Contractor shall (at its own cost and expense):
- 23.2.1 obtain and maintain in effect all Consents which may be required to carry out and complete the MUDFA Works as is consistent with, required by or contained within this Agreement; and
- 23.2.2 implement each Consent within the period of its validity and in accordance with its terms.
- 23.3 The MUDFA Contractor shall provide copies of such Consents to **tie's** Representative. At the request of the MUDFA Contractor, **tie** may at its discretion render appropriate assistance (such assistance not to be unreasonably withheld or delayed), without any obligation, in relation to obtaining any Consent.
- 23.4 Acknowledgement by **tie** of the copies of Consents provided to them pursuant to Clause 23.3 shall not in any way affect the MUDFA Contractor's obligations or relieve the MUDFA Contractor from its obligations pursuant to this Clause 23 (*Giving of Notices, Payment of Fees and Consents*) or otherwise.
- 23.5 **tie** shall be entitled to request information in relation to the progress of the application for any Consent and the Consent itself and the MUDFA Contractor shall provide the same at no cost to **tie**.
- 23.6 The MUDFA Contractor shall notify CEC and all local statutory undertakers of the dates and times when the MUDFA Contractor will require their services on the Site and shall be responsible for the co-ordination of their works if necessary with the remainder of the MUDFA Works.
- 23.7 Where **tie's** authorisation or completion of documentation in respect of compliance with any Law is required, the MUDFA Contractor shall furnish the relevant documentation to **tie** and permit **tie** a period of 14 days to authorise or complete it.

24. NEW ROADS AND STREET WORKS ACT 1991 AND TRAM LEGISLATION

- 24.1 In this Clause 24 (*New Roads and Street Works Act 1991 and Tram Legislation*) "**the Acts**" shall mean the New Roads and Street Works Act 1991 and the Tram Legislation.
- 24.2 For the purpose of obtaining any licences under the Acts required for the MUDFA Works, the undertaker shall be CEC and for the purposes of the Acts, **tie** shall be the licensee.
- 24.3 All other expressions common to the Acts and to this Clause 24 (*New Roads and Street Works Act 1991 and Tram Legislation*) shall have the same meaning as those assigned to them by the Acts.
- 24.4 The MUDFA Contractor shall obtain any street works licence, road opening permits and any other consent, licence or permission (other than any Land Consents) that may be required for the carrying out of the MUDFA Works and shall supply **tie** with copies thereof including details of any conditions or limitations imposed.

Provided that where the licence contains a prohibition against assignation which is notified to the MUDFA Contractor then the MUDFA Contractor shall give **tie** all notices required to be given by the undertaker and shall indemnify **tie** from and against all costs and charges which may arise from any failure by it so to do.

- 24.5 The MUDFA Contractor shall be responsible for giving to any relevant authority any required notice (or advance notice where prescribed) of its proposal to commence any work. A copy of each such notice shall be given to **tie**.

25. INTERFERENCE WITH TRAFFIC AND ADJOINING PROPERTIES

- 25.1 The MUDFA Contractor shall comply with the requirements of Schedule 2 (*Technical Requirements*) with regard to the maintenance of access to properties and the closure of roads.
- 25.2 The MUDFA Contractor shall at all times seek to minimise any nuisance or inconvenience to or interference with the business or operations of the owners, tenants or occupiers of the Site or other premises upon or in the locality of the Site and to the public generally, including measures to reduce the nuisance from noise, dust, smell, fumes and vibration during the carrying out of the MUDFA Works. The

MUDFA Contractor shall comply with the requirements of Schedule 2 (*Technical Requirements*) in this regard.

- 25.3 Without prejudice to the MUDFA Contractor's obligations under Clause 25.1 and 25.2 and subject to **tie's** obligation to provide Land Consents, if the carrying out of the MUDFA Works or the remedying of any defects therein is likely to necessitate any interference with the rights of adjoining or neighbouring landowners, tenants or occupiers, then the MUDFA Contractor shall without cost to **tie** use reasonable endeavours to obtain the prior written agreement of such landowners, tenants and/or occupiers, and such agreement shall be subject to the approval of **tie** before execution (such approval not to be unreasonably withheld or delayed). The MUDFA Contractor shall comply in every respect with any conditions contained in any such agreement.

26. AVOIDANCE OF DAMAGE TO HIGHWAYS ETC

- 26.1 The MUDFA Contractor shall use every reasonable means to prevent any of the highways or bridges communicating with or on the routes to the Site from being subjected to extraordinary traffic within the meaning of the Roads (Scotland) Act 1984 by any traffic of the MUDFA Contractor or any MUDFA Contractor Party.

In particular, the MUDFA Contractor shall select routes and use vehicles and restrict and distribute loads so that any such extraordinary traffic as will inevitably arise from the moving of MUDFA Contractor's Equipment and materials or manufactured or fabricated articles from and to the Site shall be limited as far as reasonably possible and so that no unnecessary damage or injury may be occasioned to such highways and bridges.

- 26.2 Save insofar as the Agreement otherwise provides, the MUDFA Contractor shall be responsible for and shall pay the cost of strengthening any bridges or altering or improving any highway communicating with the Site to facilitate the movement of MUDFA Contractor's Equipment or Temporary Works required in the carrying out of the MUDFA Works. The MUDFA Contractor shall indemnify and keep indemnified **tie** against all claims for damage to any highway or bridge communicating with the Site caused by such movement including such claims as may be made by any competent authority directly against **tie** and/or CEC pursuant to any Act of Parliament or other Statutory Instrument and shall negotiate and pay all claims arising solely out of such damage.

26.3 If, notwithstanding Clause 26.1, any damage occurs to any bridge or highway communicating with the Site arising from the transport of materials or manufactured or fabricated articles being or intended to form part of the MUDFA Works and/or the Temporary Works, the MUDFA Contractor shall notify **tie's** Representative as soon as the MUDFA Contractor becomes aware of such damage or as soon as the MUDFA Contractor receives any claim from the authority entitled to make such claim.

27. FOSSILS ETC

27.1 All fossils, coins, articles of value or antiquity and structures or other remains or things of geological or archaeological interest discovered on the Site shall as between **tie** and the MUDFA Contractor be deemed to be the absolute property of **tie** and the MUDFA Contractor shall take reasonable precautions to prevent its workmen or any other persons from removing or damaging any such article or thing and shall immediately upon discovery thereof and before removal acquaint **tie's** Representative of such discovery and carry out at the expense of **tie**, **tie's** Representative's orders as to the disposal of the same.

28. QUALITY ASSURANCE

28.1 The MUDFA Contractor shall operate a quality management system, the standard of which shall comply with BS EN 150 9001:2000 and the MUDFA Contractor shall comply with such system. Such quality management system shall be reflected in appropriate quality management plans. Such plans shall be developed in accordance with the quality management system.

28.2 If in the opinion of **tie's** Representative, any Deliverable has not been prepared in accordance with the MUDFA Contractor's quality management system or with any other provision of the Agreement, **tie's** Representative shall so inform the MUDFA Contractor in writing giving reasons. Such non-compliance shall be treated as an error or omission in carrying out the MUDFA Works and the MUDFA Contractor shall not be entitled to make any claim against **tie** for an extension of time or payment in respect of such error or omission.

28.3 Compliance with any such quality management system shall not relieve the MUDFA Contractor from any of its other duties, obligations or liabilities under this Agreement.

28.4 The MUDFA Contractor shall appoint (or shall procure the appointment of) a quality manager as soon as reasonably practicable following the Effective Date. The identity of the quality manager (and any replacement) shall be subject to the approval of **tie's** Representative (such approval not to be unreasonably withheld or delayed).

28.5 The quality manager shall:

28.5.1 ensure the effective operation of the quality systems described in this Clause 28 (*Quality Assurance*);

28.5.2 audit the quality systems at regular intervals and report the findings of such audit to **tie's** Representative;

28.5.3 review all quality systems at intervals agreed with **tie's** Representative to ensure their continued suitability and effectiveness; and

28.5.4 liaise with **tie's** Representative on all matters relating to quality management.

29. RETURNS OF LABOUR AND CONTRACTOR'S EQUIPMENT

29.1 The MUDFA Contractor shall, if required by **tie's** Representative, deliver to **tie's** Representative a return in such form and at such intervals as **tie's** Representative may prescribe showing in detail the numbers of the several classes of labour from time to time employed by the MUDFA Contractor on the Site and such information respecting MUDFA Contractor's Equipment as **tie's** Representative may require. The MUDFA Contractor shall require the Sub-Contractors to observe the provisions of this Clause 29 (*Returns of Labour and Contractor's Equipment*).

30. QUALITY OF MATERIALS AND WORKMANSHIP, SAMPLES AND TESTS

30.1 All materials and workmanship shall be the respective kinds described in the Agreement and in accordance with **tie's** Representative's instructions, and shall be subjected from time to time to such tests as **tie's** Representative may direct at the place of manufacture or fabrication or on the Site or such other place or places as may be specified in the Agreement. The MUDFA Contractor shall provide such assistance, instruments, machines, labour and materials as are normally required for examining, measuring and testing any work and the quality, weight or quantity of any materials used, and shall supply samples of materials before incorporation in the MUDFA Works for testing as may be selected and required by **tie's** Representative.

- 30.2 All samples shall be supplied by the MUDFA Contractor at its own cost.
- 30.3 The costs of making any test identified in the Specification shall be borne by the MUDFA Contractor. The reasonable, proper and demonstrable costs incurred by the MUDFA Contractor in making any other test which is not identified in the Specification but is required by **tie** in accordance with Clause 30.1 shall be borne by **tie** provided that such costs will not be paid by **tie** where such tests are for the MUDFA Contractor's own audit.

31. ACCESS TO SITE

- 31.1 **tie's** Representative, any person authorised by **tie's** Representative and authorised representatives from any of the Utilities shall at all times have access to the MUDFA Works and to the Site and to all workshops and places where work is being prepared or whence materials, manufactured articles, and machinery are being obtained for the MUDFA Works and the MUDFA Contractor shall afford every facility for and every assistance in obtaining such access or the right to such access.

32. EXAMINATION OF WORK BEFORE COVERING UP

- 32.1 The MUDFA Contractor shall afford full opportunity for **tie's** Representative and representatives from any of the Utilities to witness any testing and commissioning activities which are about to take place. The MUDFA Contractor shall give 24 hours notice to **tie's** Representative and each of the Utilities (as appropriate) whenever any such testing and commissioning is or is about to take place and **tie's** Representative shall within 24 hours of such notice, unless he considers it unnecessary and advises the MUDFA Contractor accordingly, attend for the purpose of witnessing such testing and commissioning.
- 32.2 No work or Apparatus shall be covered up or put out of view without the consent of **tie's** Representative and the MUDFA Contractor shall afford full opportunity for **tie's** Representative and representatives from any of the Utilities to examine any Apparatus and examine and measure any work which is about to be covered up or put out of view and to examine foundations before permanent work is placed thereon. The MUDFA Contractor shall give 24 hours notice to **tie's** Representative and each of the Utilities (as appropriate) whenever any such work, foundations or Apparatus is or are ready or about to be ready for examination and **tie's** Representative shall within 24 hours of such notice, unless he considers it unnecessary and advises the

MUDFA Contractor accordingly, attend for the purpose of examining such Apparatus, examining and measuring such work or of examining such foundations.

- 32.3 The MUDFA Contractor shall uncover any part or parts of the MUDFA Works including any Apparatus or make openings in or through the same as **tie's** Representative may from time to time direct and shall reinstate and make good such part or parts to the satisfaction of **tie's** Representative (acting reasonably). If any such part or parts have been covered up or put out of view after compliance with the requirements of Clause 32.1 and are found to have been carried out in accordance with the Agreement, the cost of uncovering, making openings in or through, reinstating and making good the same shall be borne by **tie** but in any other case all such costs shall be borne by the MUDFA Contractor.

33. URGENT REPAIRS AND EMERGENCIES

- 33.1 In accordance with the provisions of paragraph 6.2 of Schedule 2 (*Technical Requirements*), if, in the opinion of **tie's** Representative (acting reasonably) any remedial or other work or repair is necessary by reason of any emergency, accident or failure or other event occurring to, in or in connection with the MUDFA Works or any part thereof, either during the carrying out of the MUDFA Works or during the Defects Correction Period, **tie's** Representative shall so inform the MUDFA Contractor with confirmation in writing.
- 33.2 Thereafter, if the MUDFA Contractor is unable or unwilling to carry out such work or repair in accordance with the appropriate time period identified in paragraph 6.2 of Schedule 2 (*Technical Requirements*), **tie** may itself carry out or procure the carrying out of the said work or repair.
- 33.3 If the work or repair so carried out by **tie** is work, which in the opinion of **tie's** Representative, acting reasonably, the MUDFA Contractor was liable to carry out at its own expense under the Agreement, all costs and expenses properly incurred by **tie** in relation to such work shall be recovered from the MUDFA Contractor by **tie** and may be deducted from any monies due or to become due to the MUDFA Contractor.
- 33.4 If the MUDFA Contractor carries out such work or repair, the MUDFA Contractor shall be paid in accordance with Clause 49 (*Payment*) the amount of any direct and demonstrable costs as may be reasonable except to the extent that such extra cost results from the MUDFA Contractor's default or result from the MUDFA

Contractor's failure to use reasonable endeavours to minimise the consequences, in terms of cost of the emergency, accident, failure or other event.

34. REMOVAL OF UNSATISFACTORY WORK AND MATERIALS

34.1 **tie's** Representative shall during the progress of the MUDFA Works have power to instruct in writing:

34.1.1 the removal from the Site within such time or times specified in the instruction, of any materials which in the opinion of **tie's** Representative, acting reasonably, are not in accordance with the Agreement; and

34.1.2 substitution of such materials with materials in accordance with the Agreement; and/or

34.1.3 the removal and proper replacement (notwithstanding any previous test thereof or interim payment therefor) of any work which in respect of:

34.1.3.1 materials or workmanship; or

34.1.3.2 design by the MUDFA Contractor for which the MUDFA Contractor is responsible;

is not in the opinion of **tie's** Representative in accordance with the Agreement. After consultation with the MUDFA Contractor and with the agreement of **tie**, **tie's** Representative may allow all or any of such materials, workmanship or design to remain and confirm this in writing to the MUDFA Contractor (which shall not constitute a **tie** Change under Clause 46 (*Changes*)).

34.2 In the case of default on the part of the MUDFA Contractor in carrying out such instruction, **tie** shall be entitled to carry out or procure the carrying out of such instruction, and all costs and expenses properly incurred by **tie** in relation to such default shall be recoverable from the MUDFA Contractor by **tie** and may be deducted by **tie** from any monies due or to become due to the MUDFA Contractor.

34.3 Failure of **tie** or **tie's** Representative to disapprove any work or materials shall not prejudice the power of **tie** or **tie's** Representative subsequently to take action under this Clause 34 (*Removal of Unsatisfactory Works and Materials*).

- 34.4 If any workmanship or materials are not in accordance with the Agreement, **tie's** Representative may issue such orders or directions under Clauses 30 (*Quality of Materials and Workmanship, Samples and Tests*) or 32 (*Examination of Work Before Covering Up*) to test or open up for inspection as are reasonable in the circumstances to establish to the satisfaction of **tie's** Representative the likelihood or extent, as appropriate to the circumstances, of any further similar non-compliance.
- 34.5 To the extent that such orders or directions are reasonable in the circumstances, whatever the results of the test or opening up, and notwithstanding Clauses 30.3, 32.3 and 42 (*Contractor to Search*), the cost of such test or opening up shall be borne by the MUDFA Contractor. The orders or directions shall not constitute **tie** Changes under Clause 46 (*Changes*) but shall, unless the test or inspection showed that the workmanship or materials were not in accordance with the Agreement, constitute a cause of delay for the purposes of Clause 38 (*Extension of Time for Completion*).

35. PROGRAMME

- 35.1 The MUDFA Contractor shall progress the MUDFA Works to achieve timeous delivery and completion of the MUDFA Works (or any part thereof) and its other obligations under this Agreement in accordance with the Programme.
- 35.2 During the Pre-Construction Phase, the MUDFA Contractor shall develop the Pre-Construction Programme submitted as part of the MUDFA Contractor's tender, in accordance with Schedule 1 (*Scope of Works and Services*);
- 35.3 During the Pre-Construction Phase, the MUDFA Contractor shall develop the Construction Programme submitted as part of the MUDFA Contractor's tender, in accordance with Schedule 1 (*Scope of Works and Services*);
- 35.4 The MUDFA Contractor shall update the Pre-Construction Programme and the Construction Programme in accordance with the requirements of Schedule 1 (*Scope of Works and Services*);
- 35.5 The MUDFA Contractor shall submit to **tie's** Representative for his acceptance any change to the Pre-Construction Programme and/or the Construction Programme showing the revised order or manner in which the MUDFA Contractor proposes to carry out the MUDFA Works.
- 35.6 **tie's** Representative shall within 10 Business Days after receipt of any revised programme from the MUDFA Contractor:

35.6.1 accept the revised programme in writing; or

35.6.2 reject the revised programme in writing with reasons; or

35.6.3 request the MUDFA Contractor to supply further information to clarify or substantiate the revised programme or to satisfy **tie's** Representative as to its reasonableness having regard to the MUDFA Contractor's obligations under the Agreement.

Provided that if none of the above actions is taken within the said period of 10 Business Days, **tie's** Representative shall be deemed to have accepted the revised programme as submitted as the Programme.

35.7 The MUDFA Contractor shall within 5 Business Days after receiving from **tie's** Representative any request under Clause 35.6.3 or within such further period as **tie's** Representative may allow, provide the further information requested, failing which the revised programme shall be deemed to be rejected.

Upon receipt of such further information, **tie's** Representative shall within a further 5 Business Days accept or reject the revised programme in accordance with Clauses 35.6.1 or 35.6.2. In the event that the revised programme is accepted, the revised programme shall form and become the Pre-Construction Programme or Construction Programme (as appropriate).

35.8 Should it appear to **tie's** Representative at any time that the actual progress of the MUDFA Works does not conform with the Programme, **tie's** Representative shall be entitled to require the MUDFA Contractor to produce a revised programme showing such modifications to the Programme as may be necessary to ensure completion of the MUDFA Works or any Work Sector within the time for completion as defined in Clause 37 (*Time for Completion*) or extended time granted pursuant to Clause 38 (*Extension of Time for Completion*). In such event the MUDFA Contractor shall submit its revised programme within 10 Business Days or within such further period as **tie's** Representative may allow. Thereafter the provisions of Clauses 35.6 and 35.7 shall apply.

35.9 Acceptance by **tie's** Representative of the MUDFA Contractor's programme in accordance with Clauses 35.6, 35.7 and 35.8 shall not relieve the MUDFA Contractor of any of its duties or responsibilities under the Agreement.

36. SUSPENSION OF WORK

36.1 The MUDFA Contractor shall on the written order of **tie's** Representative suspend the progress of the MUDFA Works or any part thereof for such time or times and in such manner as **tie's** Representative may consider necessary and shall during such suspension properly protect and secure the work so far as is necessary in the opinion of **tie's** Representative. Except to the extent that such suspension is:

36.1.1 otherwise provided for in the Agreement;

36.1.2 necessary by reason of weather conditions or by some default on the part of the MUDFA Contractor; or

36.1.3 necessary for the proper construction and completion or for the safety of the MUDFA Works or any part thereof in as much as such necessity does not arise from any act or default of **tie's** Representative or **tie**,

then if compliance with **tie's** Representative's instructions under this Clause 36 (*Suspension of Work*) involves the MUDFA Contractor in delay or extra direct cost, **tie's** Representative shall take such delay into account in determining any extension of time to which the MUDFA Contractor is entitled under Clause 38 (*Extension of Time for Completion*) and the MUDFA Contractor shall be paid in accordance with Clause 49 (*Payment*) the amount of such extra direct cost as may be reasonable.

36.2 If the progress of the MUDFA Works or any part thereof is suspended on the written order of **tie's** Representative and if permission to resume work is not given by **tie's** Representative within a period of six months from the date of suspension then the MUDFA Contractor may unless such suspension is otherwise provided for in the Agreement or continues to be necessary by reason of some default on the part of the MUDFA Contractor serve a written notice on **tie's** Representative requiring permission within 10 Business Days from the receipt of such notice to proceed with the MUDFA Works or that part thereof in regard to which progress is suspended. If within the said 10 Business Days **tie's** Representative does not grant such permission, the MUDFA Contractor by a further written notice so served may (but is not bound to) elect to treat the suspension where it affects part only of the works as an omission of such part under Clause 46 (*Changes*) or where it affects the whole MUDFA Works as an abandonment of the Agreement by **tie**.

37. TIME FOR COMPLETION

- 37.1 The whole of the MUDFA Works and each of the Work Sectors required to be completed within a particular time in terms of the Programme shall be substantially completed by the MUDFA Contractor within the time so stated (or such extended time as may be allowed under Clause 38 (*Extension of Time for Completion*) or revised time agreed under Clause 39.2).
- 37.2 Each Work Section required to be completed within a particular time in terms of the relevant Work Section Programme shall be substantially completed by the MUDFA Contractor within the time so stated (or such extended time as may be allowed under Clause 38 (*Extension of Time for Completion*) or revised time agreed under Clause 39.2).
- 37.3 The MUDFA Contractor shall take all reasonable steps to mitigate the effects of any delay to the progress of the MUDFA Works.

38. EXTENSION OF TIME FOR COMPLETION

- 38.1 Should the MUDFA Contractor consider that:
- 38.1.1 any **tie** Change ordered under Clause 46 (*Changes*); or
 - 38.1.2 any delay caused by **tie** failing to issue any Work Order in accordance with the Programme; or
 - 38.1.3 any delay caused by the failure on the part of **tie** to give possession or access as referred to in Clause 9.8;
 - 38.1.4 any delay caused by adverse physical conditions and artificial obstructions which is referable to this Clause 38 (*Extension of Time for Completion*) in accordance with Clause 10.4;
 - 38.1.5 any delay caused by instructions issued by **tie's** Representative as referred to in Clause 14.3;
 - 38.1.6 any delay caused by orders or directions from **tie's** Representative in respect of the removal of unsatisfactory work or materials referred to in Clause 34.5 which are referable to this Clause 38 (*Extension of Time for Completion*);

- 38.1.7 any delay caused by the suspension of MUDFA Works which are referable to this Clause 38.1.7 in accordance with Clause 36.1;
- 38.1.8 any delay caused by the execution of any Utilities Works;
- 38.1.9 a material breach by **tie** of this Agreement;
- 38.1.10 a Force Majeure Event has occurred;
- 38.1.11 delay in receipt of any necessary permissions, consents, approvals of any statutory body which are required for the MUDFA Works and which the MUDFA Contractor has taken all practicable steps to avoid or reduce;
- 38.1.12 the execution of work not forming part of this Agreement by **tie** or by persons employed or otherwise engaged by **tie**;
- 38.1.13 the supply by **tie** of materials and goods which **tie** has agreed to provide for the MUDFA Works or the failure so to supply; or
- 38.1.14 any Protestor Action;

be such as to entitle the MUDFA Contractor to an extension of time for the substantial completion of the MUDFA Works, the MUDFA Contractor shall within 10 Business Days of becoming aware of the circumstances or occurrences which have caused or are likely to cause any delay, deliver to **tie's** Representative full and detailed particulars in justification of the period of extension claimed in order that the claim may be investigated at the time. This shall include:

- (a) the cause of the delay;
- (b) the MUDFA Contractor's estimate of the likely effect of such delay upon the Programme;
- (c) mitigation measures adopted and why unsuccessful;
- (d) the estimated additional cost that shall be incurred; and
- (e) any acceleration measures which the MUDFA Contractor could take to mitigate the effects of such delay and an estimate of the costs thereof.

38.2 **tie's** Representative shall upon receipt of such particulars consider all the circumstances known to him at that time and make an assessment of the delay (if any) that has been suffered by the MUDFA Contractor as a result of the alleged cause and shall so notify the MUDFA Contractor in writing.

38.3 Should **tie's** Representative consider that the delay suffered fairly entitles the MUDFA Contractor to an extension of the time for the substantial completion of the MUDFA Works such extension shall be granted forthwith and be notified to the MUDFA Contractor in writing. The Programme shall be revised accordingly by the MUDFA Contractor in accordance with the terms of Clause 35.6 to 35.7. In the event that the MUDFA Contractor has made a claim for an extension of time but **tie's** Representative does not consider the MUDFA Contractor entitled to an extension of time **tie's** Representative shall so inform the MUDFA Contractor without delay.

38.4 Notwithstanding the generality of the foregoing, **tie's** Representative shall, in assessing any delay or extension of time for the purpose of this Clause 38 (*Extension of Time for Completion*):

38.4.1 not take into account:

38.4.1.1 any event or cause of delay which is in any way consequent upon or necessitated by any negligence, omission, default, breach of contract or breach of statutory duty of the MUDFA Contractor, its servants or agents or any Sub-Contractor or their respective servants or agents; or

38.4.1.2 any delay which is concurrent with another delay for which the MUDFA Contractor is responsible;

38.4.2 take into account an event or cause of delay only if and to the extent that the MUDFA Contractor establishes to the satisfaction of **tie's** Representative that the MUDFA Contractor has used its best endeavours to adjust the order and sequence in which the MUDFA Contractor proposes to execute the MUDFA Works in such a manner as to minimise the effects of the delay in, or if possible to avoid altogether any delay in, the progress of the MUDFA Works; or

- 38.4.3 take into account only those events or causes of delay which appear to **tie's** Representative to be likely to result in the eventual delay in completion of the MUDFA Works in accordance with the Agreement.
- 38.5 The MUDFA Contractor shall not be entitled to and shall be deemed to have irrevocably waived any entitlement to any extension of time unless the MUDFA Contractor has within 10 Business Days of becoming aware of the circumstances or occurrences which have caused or are likely to cause delay to the MUDFA Contractor in the performance of the MUDFA Works notified **tie** in writing and submitted to **tie** the detailed particulars in accordance with Clause 38.1 in relation to any extension of time to which the MUDFA Contractor considers itself entitled in order that such submission may be investigated at the time.
- 38.6 The MUDFA Contractor shall not be entitled to and shall be deemed to have irrevocably waived any entitlement to any extension of time if the MUDFA Contractor has failed to:
- 38.6.1 identify the required dates for design information from the SDS Provider during the Pre-Construction Phase; or
 - 38.6.2 identify the long lead time works and/or order any long lead time materials; or
 - 38.6.3 identify the enabling works which are required from the Utilities in order to commence any part of the MUDFA Works; or
 - 38.6.4 manage the required interface with the Utilities in so far as this forms part of the MUDFA Works; or
 - 38.6.5 manage the required interface with CEC in so far as this forms part of the MUDFA Works; or
 - 38.6.6 manage the required interface with any third party where consent or approval for the MUDFA Works is required at any stage of such works; or
 - 38.6.7 fails to identify any instructions which are required from **tie** in order to progress the MUDFA Works in accordance with the Programme.
- 38.7 If the MUDFA Works are delayed in circumstances other than those entitling the MUDFA Contractor to an extension of time as set out in Clause 38.1 the MUDFA

Contractor shall inform **tie** at the earliest opportunity and shall give an estimate of the likely effect upon the Programme. The MUDFA Contractor at its own expense shall take such acceleration measures as are necessary to achieve the requirements of the Programme.

- 38.8 If the MUDFA Contractor suffers any delay caused by the execution of any Utilities Works; **tie's** Representative shall take such delay into account in determining any extension of time to which the MUDFA Contractor is entitled under this Clause 38 (*Extension of Time for Completion*) and the MUDFA Contractor shall be paid in accordance with Clause 49 (*Payment*) the amount of any direct cost as may be reasonable except to the extent that such delay and/or extra cost result from the MUDFA Contractor's default or result from the MUDFA Contractor's failure to use its best efforts to minimise the consequences, in terms of delay, of the relevant failure.

39. RATE OF PROGRESS AND ACCELERATION

Rate of Progress

- 39.1 If for any reason which does not entitle the MUDFA Contractor to an extension of time, the rate of progress of the MUDFA Works is at any time in the opinion of **tie's** Representative, too slow to ensure substantial completion by the time or extended time for completion prescribed by Clauses 37 (*Time for Completion*) and 38 (*Extension of Time for Completion*) as appropriate, or any previously agreed revised time for completion agreed under Clause 39.2, **tie's** Representative shall notify the MUDFA Contractor in writing and the MUDFA Contractor shall thereupon take such steps as are necessary and to which **tie's** Representative may consent to expedite the progress so as substantially to complete the MUDFA Works by that prescribed time or extended time, such consent not to be unreasonably delayed or withheld. The MUDFA Contractor shall not be entitled to any additional payment for taking such steps.

Acceleration

- 39.2 Where **tie** desires either:

- 39.2.1 a Date for Completion earlier than the Date for Completion current at the date of issue of the preliminary instruction under Clause 39.3; or

39.2.2 to have the MUDFA Works completed by the Date for Completion where, following delays or stoppage to programme for whatever reason, the MUDFA Works would not be so completed in the absence of any acceleration or resequencing arrangements; or

39.2.3 to obviate the necessity for, or to order the cancellation of, or a reduction in the length of, any extension of time being fixed under Clause 38 (*Extension of Time for Completion*) so that either the Date for Completion current at the date of preliminary instruction under Clause 39.3 is not extended or is not extended by the length of the extension of time that would otherwise have been given under Clause 38 (*Extension of Time for Completion*);

tie's Representative may issue a preliminary instruction under Clause 39.3.

39.3 If **tie's** Representative issues a preliminary instruction to the MUDFA Contractor to accelerate the carrying out or alter the sequence and timing of any work to be executed under the provisions of the Agreement, **tie's** Representative shall in such instruction set out the exact nature of the requirements of **tie** in regard to the Date for Completion as referred to in Clause 39.2 for which the preliminary instruction has been issued.

39.4 If the MUDFA Contractor sustains a reasonable objection to such an instruction, the preliminary instruction shall either be withdrawn or so varied as to meet such objection and may then be re-issued by **tie's** Representative.

39.5 As soon as reasonably practicable after receipt of the preliminary instruction (or after receipt of a preliminary instruction re-issued under Clause 39.4) the MUDFA Contractor shall inform **tie's** Representative in writing in respect of the proposed instruction:

39.5.1 of the amount of any additional cost to which the MUDFA Contractor should be entitled as a result of compliance with the instruction when issued by **tie's** Representative subject to Clause 39.2; or

39.5.2 that it is not reasonably practicable to state such a sum and that the cost to **tie** of compliance by the MUDFA Contractor will therefore have to be ascertained in accordance with Clause 46 (*Changes*); and

39.5.3 the earlier date for completion which can become the Date for Completion for all the purposes of the Agreement (and which will correspond within the meaning of Clause 37 (*Time for Completion*)); or

39.5.4 the extent to which an extension of time that would otherwise be fixed under Clause 38 (*Extension of Time for Completion*) can be cancelled or reduced and the date for completion which as a result will be or become the Date for Completion for all the purposes of the Agreement (and which will correspond with a revised time for completion within the meaning of Clause 37 (*Time for Completion*)).

39.6 If on receipt of the information given to **tie's** Representative under Clause 39.5 **tie** wishes to pay the amount referred to in Clause 39.5.1 and to accept the Date for Completion stated by the MUDFA Contractor pursuant to Clause 39.5.3 **tie** shall cause **tie's** Representative to issue an instruction:

39.6.1 confirming the details of the acceleration or alteration of sequence or timing required, and

39.6.2 fixing the Date for Completion and the amount to which Clause 39.5.1 refers shall be included as if it were a variation.

39.7 Following any instruction under Clause 39.6 the MUDFA Contractor shall revise the Programme in accordance with the terms of Clause 35 (*Programme*).

40. NOTIFICATION OF SUBSTANTIAL COMPLETION

40.1 In respect of each Work Sector, when the MUDFA Contractor considers that a Work Sector has been substantially completed and has satisfactorily passed any final test that may be prescribed by the Agreement, the MUDFA Contractor may give notice in writing to that effect to **tie's** Representative. Such notice shall be accompanied by an undertaking to finish any outstanding work in accordance with the provisions of Clause 41.1.

40.2 **tie's** Representative shall within 10 Business Days of the date of delivery of such notice either:

40.2.1 issue to the MUDFA Contractor a Certificate of Substantial Completion stating the date on which in his opinion the Work Sector was substantially completed in accordance with the Agreement; or

40.2.2 give instructions in writing to the MUDFA Contractor specifying all the work which in **tie's** Representative's opinion requires to be done by the MUDFA Contractor before the issue of such a certificate.

If **tie's** Representative gives such instructions the MUDFA Contractor shall be entitled to receive a Certificate of Substantial Completion within 10 Business Days of completion to the satisfaction of **tie's** Representative of the work specified in the said instructions.

40.3 For the purposes of this Clause 40 (*Notification of Substantial Completion*), 'Substantial Completion' shall mean successful testing and commissioning of the Apparatus in accordance with the provisions of Schedule 3 (*Specification*) and/or the relevant Works Order, and approval by **tie** of any reinstatement in accordance with the provisions of Schedule 3 (*Specification*) and/or the relevant Work Order. **tie's** Representative may at his discretion issue a Certificate of Substantial Completion notwithstanding that minor items of work remain to be completed, in which event such incomplete work and/or commissioning and adjustment shall be included in the work outstanding which is to be finished by the MUDFA Contractor in accordance with the provisions of Clause 41 (*Work Outstanding*).

41. WORK OUTSTANDING

41.1 The undertaking to be given under Clause 40.1 may after agreement between **tie's** Representative and the MUDFA Contractor specify a time or times within which the outstanding work shall be completed. If no such times are specified, any outstanding work shall be completed as soon as practicable during the Defects Correction Period.

41.2 The MUDFA Contractor shall deliver up to **tie** the MUDFA Works and each Work Sector and part thereof, at the end of the Defects Correction Period in the condition required by the Agreement (fair wear and tear excepted) to the satisfaction of **tie's** Representative. To this end, the MUDFA Contractor shall, as soon as practicable, carry out all work of repair, amendment, reconstruction, rectification and making good defects of whatever nature as may be required of the MUDFA Contractor in writing by **tie's** Representative during the Defects Correction Period or within fourteen days after its expiry as a result of an inspection made by or on behalf of **tie's** Representative prior to its expiry. Provided that (but without prejudice to Clause 33 (*Urgent Repairs and Emergencies*)), where **tie's** Representative states that, in his opinion, any such defect is likely to cause unreasonable inconvenience to any Utility,

CEC or any third party or is likely directly or indirectly to cause any further damage to any Apparatus or any property, the MUDFA Contractor shall comply with **tie's** Representative's instruction no later than 48 hours from its receipt.

41.3 All work required under Clause 41.2 shall be carried out by the MUDFA Contractor at its own expense if, in **tie's** Representative's opinion, it is necessary due to the use of materials or workmanship not in accordance with the Agreement or to neglect or failure by the MUDFA Contractor to comply with any of its obligations under the Agreement. In any other event the value of such work shall be ascertained and paid for as if it were additional work.

41.4 If the MUDFA Contractor fails to do any such work as aforesaid **tie** shall be entitled to carry out that work itself or by using other contractors and if it is work which the MUDFA Contractor should have carried out at its own expense, **tie** shall be entitled to recover all costs and expenses properly incurred by **tie** in relation to such work from the MUDFA Contractor and **tie** may deduct the same from any monies that are or may become due to the MUDFA Contractor.

42. CONTRACTOR TO SEARCH

42.1 The MUDFA Contractor shall, if required by **tie's** Representative in writing during the carrying out of the MUDFA Works (including the Defects Correction Period), carry out such surveys, searches, tests or trials as may be necessary to determine the cause of any defect, imperfection or fault under the directions of **tie's** Representative. Unless the defect, imperfection or fault is one for which the MUDFA Contractor is liable under the Agreement, the cost of the surveys, searches, tests or trials carried out by the MUDFA Contractor as aforesaid shall be borne by **tie**. If the defect, imperfection or fault is one for which the MUDFA Contractor is liable, the cost of the surveys, searches, tests or trials carried out as aforesaid shall be borne by the MUDFA Contractor and the MUDFA Contractor shall in such case repair, rectify and make good such defect, imperfection or fault at its own expense in accordance with Clause 41 (*Work Outstanding*).

43. NON-REMOVAL OF MATERIALS AND CONTRACTOR'S EQUIPMENT

43.1 The MUDFA Contractor shall give written notice to **tie** when any MUDFA Contractor's Equipment, Temporary Works, materials for Temporary Works or other goods or materials owned by the MUDFA Contractor and brought on to the Site for the purposes of the Agreement are removed from the Site.

- 43.2 **tie** shall not at any time be liable for the loss of or damage to any MUDFA Contractor's Equipment, Temporary Works, goods or materials. Unless such loss or damage is caused by **tie** and is not covered by any of the Required Insurances and/or Additional Insurance.
- 43.3 If the MUDFA Contractor fails to remove any of the said MUDFA Contractor's Equipment, Temporary Works, goods or materials in accordance with Schedule 2 (*Technical Requirements*) within such reasonable time after completion of the MUDFA Works as **tie's** Representative may allow, then **tie** may sell or otherwise dispose of such items. From the proceeds of the sale of any such items, **tie** shall be entitled to retain any costs or expenses incurred in connection with their sale and disposal before paying the balance (if any) to the MUDFA Contractor.

44. DEFECTS CORRECTION CERTIFICATE

- 44.1 At the end of the Defects Correction Period and when all outstanding work referred to under Clause 40 (*Notification of Substantial Completion*) and all work of repair, amendment, reconstruction, rectification and making good of defects, imperfections, shrinkages and other faults referred to under Clause 41 (*Work Outstanding*) and Clause 42 (*Contractor to Search*) have been completed, **tie's** Representative shall issue to the MUDFA Contractor a Defects Correction Certificate stating the date on which the MUDFA Contractor shall have completed its obligations to construct and complete the MUDFA Works to **tie's** Representative's satisfaction.
- 44.2 The issue of the Defects Correction Certificate shall not be taken as relieving the MUDFA Contractor from any liability arising out of or in any way connected with the performance of its obligations under the Agreement.

45. LIQUIDATED DAMAGES FOR DELAY

- 45.1 If the MUDFA Contractor fails to achieve substantial completion of any Work Sector by the Longstop Date, the MUDFA Contractor shall pay to **tie** the sum of £50,000 sterling for every week (or pro-rated for each day) which shall elapse between the date on which the prescribed time expired and the date on which the final Work Sector is substantially completed in accordance with this Agreement.

The said sum represents **tie's** genuine pre-estimate of the minimum level of damages per week likely to be suffered by **tie** if any Work Sector is not substantially completed in accordance with the Agreement.

45.2 All sums payable by the MUDFA Contractor to **tie** pursuant to this Clause 45 (*Liquidated Damages for Delay*) shall be paid as liquidated damages for delay and not as a penalty.

45.3 The total amount of any liquidated damages payable by the MUDFA Contractor under this Clause 45 (*Liquidated Damages for Delay*) shall be limited to £1,300,000 sterling.

45.4 **tie** may:

45.4.1 deduct and retain the amount of any liquidated damages becoming due under the provisions of this Clause 45 (*Liquidated Damages for Delay*) from any sums due or which become due to the MUDFA Contractor including any Value Engineering Incentive Payment; or

45.4.2 require the MUDFA Contractor to pay such amount to **tie** forthwith.

If upon a subsequent or final review of the circumstances causing delay, **tie's** Representative grants a relevant extension or further extension of time in respect of the Longstop Date **tie** shall no longer be entitled to liquidated damages in respect of the period of such extension.

Any sum in respect of such period which may already have been recovered under this Clause 45 (*Liquidated Damages for Delay*) shall be reimbursed forthwith to the MUDFA Contractor. Interest shall not be payable by **tie** on any amounts so reimbursed.

45.5 If after liquidated damages have become payable, **tie's** Representative orders a variation under Clause 46 (*Changes*) or any other situation outside the MUDFA Contractor's control arises any of which in **tie's** Representative's opinion results in further delay in respect of the Longstop Date:

45.5.1 **tie's** Representative shall so notify the MUDFA Contractor and **tie** in writing;
and

45.5.2 **tie's** further entitlement to liquidated damages in respect of the Longstop Date shall be suspended until **tie's** Representative notifies the MUDFA Contractor and **tie** in writing that the further delay has come to an end.

Such suspension shall not invalidate any entitlement to liquidated damages which accrued before the period of further delay started to run and subject to any subsequent or final review of the circumstances causing delay any monies already deducted or paid as liquidated damages under the provisions of this Clause 45 (*Liquidated Damages for Delay*) may be retained by **tie**.

45.6 The recovery by **tie** of liquidated damages under this Clause 45 (*Liquidated Damages for Delay*) shall not in any way relieve the MUDFA Contractor from its obligation to complete the MUDFA Works, nor from any of its other obligations or liabilities under the Agreement.

46. CHANGES

46.1 Unless expressly stated in this Agreement or as may otherwise be agreed by the Parties, **tie** Changes shall be dealt with in accordance with this Clause 46 (*Changes*). If **tie** requires a **tie** Change, it must serve a **tie** Notice of Change on the MUDFA Contractor.

46.2 **tie's** Representative may instruct **tie** Changes up to a limited value, the amount to be notified to the MUDFA Contractor in writing.

46.3 A **tie** Notice of Change shall:

46.3.1 set out the proposed **tie** Change in sufficient detail to enable the MUDFA Contractor to calculate and provide the Estimate in accordance with Clause 46.4 below;

46.3.2 require the MUDFA Contractor to provide **tie** within ten Business Days of receipt of **tie** Notice of Change with an Estimate, and specify whether any competitive quotes are required; and

46.3.3 set out how **tie** wishes to pay (where relevant) for any proposed **tie** Change.

46.4 As soon as is reasonably practicable, and in any event within ten Business Days or such other longer time as **tie** may decide is reasonable in the circumstances after having received a **tie** Notice of Change, the MUDFA Contractor shall deliver to **tie** the Estimate. The Estimate shall include the opinion of the MUDFA Contractor (acting reasonably) on:

- 46.4.1 whether relief from compliance with any of its obligations under this Agreement is required during or as a result of the implementation of the proposed **tie** Change;
 - 46.4.2 any impact on the performance of the MUDFA Works;
 - 46.4.3 any impact on the Programme, and any requirement for an extension of time;
 - 46.4.4 any amendment required to the Agreement as a result of the implementation of the proposed **tie** Change,
 - 46.4.5 the proposed method of delivery of the proposed **tie** Change;
 - 46.4.6 proposals to mitigate the impact of the proposed **tie** Change; and
 - 46.4.7 any increase or decrease in any sums due to be paid to the MUDFA Contractor as a result of the implementation of the proposed **tie** Change.
- 46.5 Where circumstances dictate that an Estimate cannot reasonably be provided by the MUDFA Contactor timeously, **tie's** Representative may at his absolute discretion waive the requirements of Clause 46.4 or part thereof, before instructing a **tie** Change in accordance with Clause 46.2 where the **tie** Change cost will be manifestly below the limited value notified to the MUDFA Contractor in accordance with Clause 46.2.
- 46.6 The valuation of any **tie** Changes made in compliance with this Clause 46 (*Changes*) shall be added to or deducted from the sums due to be paid to the MUDFA Contractor as the case may be, and shall be ascertained by **tie** as follows:
- 46.6.1 by measurement and valuation at the rates and prices for similar work carried out under similar conditions in Schedule 4 (*Bills of Quantities*) insofar as such rates and prices apply;
 - 46.6.2 if such rates and prices do not apply by measurement and valuation at rates and prices deduced therefrom insofar as it is practical to do so;
 - 46.6.3 if such rates and prices do not apply and it is not practicable to deduce rates and prices therefrom by measurement and/or valuation at fair rates and prices; or
 - 46.6.4 if the value of the **tie** Change cannot properly be ascertained by measurement and/or valuation, the value of the resources and labour employed thereon, as

appropriate, in accordance with the basis of rates for provisional work set out in Schedule 4 (*Bills of Quantities*);

provided that where any **tie** Change would otherwise fall to be valued under Clauses 46.6.1 or 46.6.2 above, but **tie's** representative is of the opinion that the instruction therefor was issued at such a time or was of such content as to make it unreasonable for the alteration or addition to be so valued, the value of **tie** Change shall be ascertained by measurement and/or valuation at fair rates and prices.

46.7 The MUDFA Contractor shall include in the Estimate evidence demonstrating that:

46.7.1 the MUDFA Contractor has used all reasonable endeavours to minimise (including by the use of competitive quotes) any increase in costs and to maximise any reduction of costs;

46.7.2 the MUDFA Contractor has, where required by **tie**, sought competitive quotes from persons other than the MUDFA Contractor Parties in pursuance of its obligation under Clause 46.7.1 above;

46.7.3 the MUDFA Contractor has investigated how to mitigate the impact of **tie** Change; and

46.7.4 the proposed **tie** Change will, where relevant, be implemented in the most cost-effective manner, including showing, where reasonably practicable, that when any expenditure is incurred, relevant Changes in Law that are foreseeable at the time of consideration of the specific **tie** Change and which relate to that **tie** Change have been taken into account by the MUDFA Contractor.

46.8 If the MUDFA Contractor does not intend to use its own resources to implement any proposed **tie** Change, it shall:

46.8.1 demonstrate that it is appropriate to subcontract the implementation of such **tie** Change; and

46.8.2 comply with Good Industry Practice with the objective of ensuring that it obtains best value for money when procuring any Sub-Contractor or Deliverable required in relation to the proposed **tie** Change.

46.9 As soon as reasonably practicable after **tie** receives the Estimate, the Parties shall discuss and agree the issues set out in the Estimate. From such discussions **tie** may modify the **tie** Notice of Change, and **tie** may require the MUDFA Contractor to seek and evaluate competitive tenders. In each case the MUDFA Contractor shall, as soon as practicable, and in any event not more than fourteen Business Days after receipt of such modification or such other longer time as **tie** may decide is reasonable in the circumstances, notify **tie** of any consequential changes to the Estimate.

46.10 If the Parties cannot agree on the contents of the Estimate, then either Party may refer the Estimate for determination in accordance with the Dispute Resolution Procedure provided that the MUDFA Contractor shall not be obliged to implement any proposed **tie** Change where:

46.10.1 **tie** does not have the legal power or capacity to require the implementation of such proposed **tie** Change; or

46.10.2 implementation of such proposed **tie** Change would:

46.10.2.1 be contrary to Law;

46.10.2.2 not be technically feasible;

46.10.2.3 substantially and materially increases the probability of a substantial non-compliance with this Agreement by the MUDFA Contractor; or

46.10.2.4 be outwith the specific competence of the MUDFA Contractor either in performing the activity required by the **tie** Change or in supervising a MUDFA Contractor Party to carry out the activity required by the **tie** Change.

46.11 As soon as reasonably practicable after the contents of the Estimate have been agreed or determined pursuant to the Dispute Resolution Procedure **tie** shall:

46.11.1 issue a **tie** Change Order ; or

46.11.2 withdraw the **tie** Notice of Change.

For the avoidance of doubt, the MUDFA Contractor shall not commence work until instructed through receipt of a **tie** Change Order.

46.12 If **tie** does not issue a **tie** Change Order within thirty days of the contents of the Estimate having been agreed or determined pursuant to Clause 46.10, then the **tie** Notice of Change shall be deemed to have been withdrawn.

Restrictions on Entitlements to Relief for a tie Change

46.13 The MUDFA Contractor shall not be entitled to any extension of time, payment or relief in respect of any **tie** Change if and to the extent that the MUDFA Contractor could (where such action is within the power of the MUDFA Contractor and the MUDFA Contractor could be reasonably expected to take such action, having regard to the scope and nature of the MUDFA Works), by the exercise of reasonable foresight and diligence, have prevented or materially reduced the requirement for such **tie** Change.

46.14 If, having received instructions from **tie** or **tie's** Representative, the MUDFA Contractor considers that compliance with those instructions would amount to a **tie** Change, the MUDFA Contractor shall within 10 Business Days of any instructions being received, notify **tie** of the same and, if it is agreed by the parties or determined pursuant to the Dispute Resolution Procedure that a **tie** Change would arise if the instructions were complied with, **tie** may proceed with the instruction in accordance with this Clause 46 (*Changes*).

46.15 Any failure by the MUDFA Contractor to notify **tie** within 10 Business Days of instructions being received that it considers compliance with such instructions from **tie** or **tie's** Representative would amount to a **tie** Change shall constitute an irrevocable acceptance by the MUDFA Contractor that any compliance with **tie's** or **tie** Representative's comments shall be without cost to **tie** and without any entitlement to any extension of time or other relief.

46.16 Any failure by the MUDFA Contractor to notify **tie** within 10 Business Days of becoming aware of any other matter or occurrence which could amount to a **tie** Change shall constitute an irrevocable acceptance by the MUDFA Contractor that in being instructed to deal with such matter or occurrence as a **tie** Change, the MUDFA Contractor shall not be entitled to any costs, extension of time or other relief. in respect of such **tie** Change.

Changes proposed by the MUDFA Contractor

46.17 Within 10 Business Days of the MUDFA Contractor becoming aware of the need or desirability for a variation to the MUDFA Works, the MUDFA Contractor shall notify **tie** of the reasons, consequential effects including any increase or reduction in costs, and options available to mitigate these effects with a recommendation for action by **tie**.

46.18 If **tie** wishes to proceed with a variation proposed by the MUDFA Contractor, **tie** shall serve a **tie** Notice of Change on the MUDFA Contractor and Clauses 46.3 to 46.16 shall be adhered to by **tie** and the MUDFA Contractor.

Change Control Register

46.19 The MUDFA Contractor shall maintain a change control register which shall detail the status and gives summary information on all withdrawn, potential and confirmed variations under this Agreement.

46.20 No variation ordered in accordance with this Clause 46 (*Changes*) shall in any way vitiate or invalidate the Agreement.

47. QUALIFYING CHANGES IN LAW

47.1 If a Qualifying Change in Law occurs or is to occur, then either Party may write to the other to express an opinion on its likely effects, giving details of its opinion of:

47.1.1 any necessary change in the MUDFA Works;

47.1.2 whether any changes are required to the terms of this Agreement to deal with the Qualifying Change in Law; or

47.1.3 whether relief from compliance with any obligations under this Agreement is required as a result of the Qualifying Change in Law;

in each case giving in full detail the procedure for implementing the Qualifying Change in Law. Responsibility for any costs of such implementation (and any resulting variation to payments due under this Agreement or other payment method at **tie's** discretion) shall be dealt with in accordance with Clauses 47.2 and 47.3 below.

47.2 As soon as reasonably practicable after receipt of any notice from either Party under Clause 47.1 above, the Parties shall discuss and agree the issues referred to in Clause 47.1 above and any ways in which the MUDFA Contractor can mitigate the effect of the Qualifying Change in Law and the MUDFA Contractor shall:

- 47.2.1 provide evidence to **tie** that the MUDFA Contractor has used and will continue to use all reasonable endeavours (including where appropriate and practicable the use of competitive quotes) to minimise any increase in costs and maximise any reduction in costs;
- 47.2.2 demonstrate how the effects of the Qualifying Change in Law will be mitigated;
- 47.2.3 demonstrate that the relevant changes will be implemented in the most cost-effective manner, including showing, where reasonably practicable, that when any expenditure is incurred, relevant Changes in Law that are foreseeable at the time of consideration of the specific Qualifying Change in Law and which relate to that Qualifying Change in Law have been taken into account by the MUDFA Contractor.; and
- 47.2.4 give evidence, where reasonably practicable, as to how the Qualifying Change in Law has affected the fees and/or costs of similar contractors.
- 47.3 As soon as reasonably practicable after the issues referred to in Clause 47.2 have been agreed between the Parties or determined pursuant to the Dispute Resolution Procedure, **tie** shall give a **tie** Notice of Change and the provisions of Clause 46 (*Changes*) shall apply except that the MUDFA Contractor shall be obliged to implement the change in all circumstances (except to the extent that such change is not necessary to implement the Qualifying Change in Law). **tie** shall issue a **tie** Change Order once it has been agreed or determined pursuant to the Dispute Resolution Procedure. In assessing the value of the change, **tie** shall pay the agreed amount for each and every event. **tie** will, at its sole discretion, determine the scope of each and every event.
- 47.4 Except as otherwise expressly provided in this Agreement, the MUDFA Contractor shall be responsible for any increase in its costs and shall not be entitled to any relief from its obligations under this Agreement to the extent that the same is caused as a result of a General Change in Law.

48. VALUE ENGINEERING INCENTIVE

- 48.1 During the Pre-Construction Phase, the MUDFA Contractor shall work with the SDS Provider, the Utilities and **tie** to, where possible, reduce the Tender Total and the costs associated with the MUDFA Works by:

- 48.1.1 proposing and agreeing design solutions involving value engineering;
 - 48.1.2 proposing and agreeing methods for maximising construction productivity;
 - 48.1.3 proposing and agreeing the manner in which any disruption caused during the MUDFA Works to the City of Edinburgh is minimised;
 - 48.1.4 achieving savings in the preliminary costs, and the setting up costs;
 - 48.1.5 refinement of the sequence of work shown in the Construction Programme submitted as part of the MUDFA Contractor's tender;
 - 48.1.6 proposing alternative materials and components which meet the requirements of the Agreement (subject to the approval of **tie**);
 - 48.1.7 achieving savings in respect of the required Temporary Works; and
 - 48.1.8 achieving savings associated with risk mitigation.
- 48.2 The MUDFA Contractor, the Utilities, **tie** and the SDS Provider shall complete the activities described in Clause 48.1 no later than 10 Business Days before the anticipated completion of the Pre-Construction Phase. The MUDFA Contractor and **tie** (both acting reasonably) shall discuss and agree any revisal to the Tender Total within 5 Business Days of the completion of the activities described in Clause 48.1.
- 48.3 Any revisal to the Tender Total agreed in accordance with Clause 48.2 shall be referred to as the Anticipated Final Account.
- 48.4 If the Final Account is less than the Tender Total, the MUDFA Contractor shall be entitled to apply for a Value Engineering Incentive Payment in accordance with Clause 49.6 provided always that unless expressly waived by **tie** in writing, the MUDFA Contractor shall not be entitled to apply for a Value Engineering Incentive Payment if the MUDFA Contractor has breached a material term of this Agreement and/or breached any health and safety legislation and such breach has resulted in a successful prosecution of the MUDFA Contractor and/or any MUDFA Contractor Party. Any Value Engineering Incentive Payment which is due to the MUDFA Contractor shall be included with the Final Account Certificate and paid in accordance with Clauses 49.6 and 49.8.

49. PAYMENT

49.1 **tie** hereby agrees to pay to the MUDFA Contractor for the carrying out and completion of the MUDFA Works, the Contract Price at the times and in the manner prescribed by this Agreement.

49.2 Unless otherwise agreed, the MUDFA Contractor shall submit each application for payment for the works and services which are being claimed by the MUDFA Contractor for the previous calendar month within 3 Business Days following the final date of each calendar month. Each application for payment shall:

49.2.1 show the estimated contract value of the MUDFA Works, carried out up to the end of the previous calendar month;

49.2.2 set out a list of any goods or materials delivered to the Site for but not yet incorporated in the MUDFA Works and their value;

49.2.3 show the estimated amounts to which the MUDFA Contractor considers itself entitled in connection with all other matters for which provision is made under the Agreement, including any Temporary Works or MUDFA Contractor's Equipment for which separate amounts are included in the Bills of Quantities;

49.2.4 include an updated cost loaded programme in electronic form (P3e) together with two hard copies of all supporting documentation;

49.2.5 set out any other costs and/or expenses where it has been agreed in writing that such costs and/or expenses shall be charged to **tie**;

49.2.6 include a forecast of the works, services and any associated costs and/or expenses which the MUDFA Contractor estimates could be claimed for the next three months following the month which is the subject of the application for payment, together with a breakdown of the tasks and workstreams which relate to such forecast; and

49.2.7 and a progress report in accordance with the requirements of Schedule 1 (*Scope of Works and Services*).

Amounts payable in respect of any Utility Specialist Contractors are to be listed separately from amounts payable in respect of the MUDFA Works.

- 49.3 **tie** shall, subject to any clarifications as are in **tie's** opinion (acting properly and reasonably) necessary, certify by notice in writing (an "**Interim Certificate**") to the MUDFA Contractor that part of the sum claimed in each application for payment which is approved by **tie** and give reasons why any part of the sum claimed has not been certified and the value of the sums involved, no later than 10 Business Days after the date on which application for payment was received by **tie**.
- 49.4 Subject to Clause 49.13 within 7 days of the date of the Interim Certificate, the MUDFA Contractor shall submit a valid VAT invoice to **tie** for the sum certified in each Interim Certificate. Payment will become due to the MUDFA Contractor on the date of issue of each Interim Certificate by **tie** and the final date for payment by **tie** of each valid VAT invoice received by **tie** shall be thirty days from the date of issue of the relevant Interim Certificate by **tie**.
- 49.5 It shall be a condition precedent to the first payment (and in respect of Clause 49.5.2, any payment falling 30 days after (or such longer period as agreed in accordance with Clause 4.7) the request from **tie** in accordance with Clause 4.7 unless the MUDFA Contractor can demonstrate that it has used reasonable endeavours to obtain the required collateral warranty) to the MUDFA Contractor under the Agreement that it shall have provided to **tie**:
- 49.5.1 the parent company guarantee in accordance with Clause 4.6; and
- 49.5.2 any collateral warranty requested by **tie** in accordance with Clause 4.7; and
- 49.5.3 the collateral warranty from Doocey Limited in accordance with Clause 12.8.
- 49.6 It shall be a condition precedent to any payment to the MUDFA Contractor under this Agreement in respect of any Construction Works that the MUDFA Contractor shall have provided to **tie** the Performance Bond in accordance with Clause 4.1.
- 49.7 No later than three months after the date of the Defects Correction Certificate, the MUDFA Contractor shall submit to **tie's** Representative a statement of final account and supporting documentation showing in detail the value in accordance with the Agreement of the MUDFA Works carried out by the MUDFA Contractor, together with all further sums which the MUDFA Contractor considers to be due to it under the Agreement up to the date of the Defects Correction Certificate.

Within three months after receipt of the MUDFA Contractor's final account and of all information reasonably required for its verification, **tie's** Representative shall issue a

certificate ("**Final Account Certificate**") stating the amount which in his opinion is finally due under the Agreement from **tie** to the MUDFA Contractor or from the MUDFA Contractor to **tie** as the case may be up to the date of the Defects Correction Certificate and after giving credit to **tie** for all amounts previously paid by **tie** and for all sums to which **tie** is entitled under the Agreement. Provided that if at that time there remains to be carried out by the MUDFA Contractor any outstanding work referred to under Clause 40 (*Notification of Substantial Completion*) or any work ordered pursuant to Clauses 41 (*Work Outstanding*) and 42 (*Contractor to Search*) **tie's** Representative may withhold certification until the completion of such work of so much of the said remainder as shall in the opinion of **tie's** Representative represent the cost of the work remaining to be carried out.

Such amount shall, subject to Clause 45 (*Liquidated Damages for Delay*), be paid to or by the MUDFA Contractor as the case may require.

- 49.8 Within 7 days of the date of the Final Account Certificate, the MUDFA Contractor shall submit a valid VAT invoice to **tie** for the value of the Final Account Certificate and for the total of all Retentions retained by **tie** in accordance with Clause 49.13. Payment will become due to the MUDFA Contractor on the date of issue of the Final Account Certificate by **tie** and the final date for payment by **tie** of the valid VAT invoice shall be thirty days from the date of issue of the Final Account Certificate by **tie**.
- 49.9 In the event of failure of **tie** to make payment in accordance with this Clause 49 (*Payment*), **tie** shall pay to the MUDFA Contractor interest upon any payment not paid by the final date for payment at a rate per annum equivalent to 2 per cent above the Base Rate of the Royal Bank of Scotland current on the date upon which such payment first becomes overdue adjusted to reflect any changes to the rate during the period over which the payment remains overdue.
- 49.10 Subject to Clause 49.11, **tie** may deduct any amount payable by the MUDFA Contractor to **tie** whether by way of damages or in respect of any loss or expense sustained by **tie** by reason of the MUDFA Contractor's breach of this Agreement from any other payment or payments due to be made to the MUDFA Contractor by **tie** under this Agreement.
- 49.11 Any notice of intention to withhold payment shall be served by **tie** at least 3 days prior to any final date for payment calculated in accordance with this Clause 49

(*Payment*) and such notice shall state the sums being withheld and the detailed reason or detailed reasons for such withholding. Where an effective notice of intention to withhold payment is given, but on the matter being referred to the Dispute Resolution Procedure, it is decided that the whole or part of the amount should be paid, the decision shall be construed as requiring payment not later than:

49.11.1 7 days from the date of the decision, or

49.11.2 the date which, apart from the notice, would have been the final date for payment,

whichever is the later.

49.12 The MUDFA Contractor shall be entitled to payment of interest as provided in Clause 49.9 in respect of the relevant part of any payments which have been withheld in accordance with Clause 49.11 but are subsequently determined as being payable by **tie** to the MUDFA Contractor either by agreement between the Parties or a decision following a referral to the Dispute Resolution Procedure. The interest shall be calculated for the period between the date when the relevant part of the payment should have been paid but for the notice of intention to withhold payment and the date on which payment is made by **tie** in accordance with Clause 49.11..

49.13 In the event that a Performance Bond is not provided under Clause 4.1 or ceases subsequently to be in full force and effect then within 7 days of the date of the Interim Certificate, **tie** shall be entitled to make a retention in accordance with this Clause 49.13 until such time as a replacement Performance Bond is provided by the MUDFA Contractor. The MUDFA Contractor shall submit a valid VAT invoice to **tie** for ninety seven per cent (97%) of the sum certified in each Interim Certificate. **tie** shall retain three per cent (3%) of such sums certified in each Interim Certificate (the "**Retention**"). Payment will become due to the MUDFA Contractor on the date of issue of each Interim Certificate by **tie** and the final date for payment by **tie** of each valid VAT invoice received by **tie** shall be thirty days from the date of issue of the relevant Interim Certificate by **tie**.

50. MEASUREMENT

50.1 The quantities set out in the Bills of Quantities are the estimated quantities of the work and they are not to be taken as the actual and correct quantities of the MUDFA

Works to be carried out by the MUDFA Contractor in fulfilment of its obligations under the Agreement.

- 50.2 No error in description in the Bills of Quantities or omission therefrom shall vitiate the Agreement nor release the MUDFA Contractor from the carrying out of the whole or any part of the MUDFA Works in accordance with any Work Order, Schedule 3 (*Specification*) or from any of the MUDFA Contractor's other obligations or liabilities under this Agreement. Any such error or omission shall be corrected by **tie's** Representative and the value of the work actually carried out shall be ascertained in accordance with Clause 46.5. Provided that there shall be no rectification of any errors, omissions or wrong estimates in the descriptions, rates and prices inserted by the MUDFA Contractor in the Bills of Quantities.

51. MEASUREMENT AND VALUATION

- 51.1 **tie's** Representative shall, except as otherwise stated, ascertain and determine by re-measurement the value in accordance with the Agreement of the work done in accordance with the Agreement.
- 51.2 Notwithstanding that the actual quantities carried out in respect of any item is greater or less than those stated in the Bills of Quantities, there shall be no increase or decrease in the rates in the Bills of Quantities in consequence thereof.
- 51.3 **tie's** Representative shall when he requires any part or parts of the work to be measured give reasonable notice to the MUDFA Contractor who shall attend or send a qualified agent to assist **tie's** Representative in making such measurement and shall furnish all particulars required by either of them. Should the MUDFA Contractor not attend or neglect or omit to send such agent then the measurement made by **tie's** Representative shall be taken to be the correct measurement of the work.
- 51.4 Where any work is carried out on a daywork basis the MUDFA Contractor shall be paid for such work under the conditions and at the rates and prices set out in the daywork schedule included in the Agreement or failing the inclusion of a daywork schedule the MUDFA Contractor shall be paid at the rates and prices and under the conditions contained in the "Schedules of Dayworks carried out incidental to Contract Work" issued by The Civil Engineering Contractors Association (formerly issued by The Federation of Civil Engineering Contractors) current at the date of the carrying out of the daywork.

- 51.5 The MUDFA Contractor shall furnish to **tie's** Representative such records, receipts and other documentation as may be necessary to prove amounts paid and/or costs incurred. Such returns shall be in the form and delivered at the times **tie's** Representative shall direct and shall be agreed within a reasonable time.
- 51.6 Before ordering any materials from any of the Utilities the MUDFA Contractor shall if so required submit to **tie's** Representative quotations for the same for his approval.

52. METHOD OF MEASUREMENT

- 52.1 Unless otherwise provided in the Agreement or unless general or detailed description of the work in the Bills of Quantities or any other statement clearly shows to the contrary, the Bills of Quantities shall be deemed to have been prepared and measurements shall be made according to the instructions contained within the Preambles to the Bills of Quantities.

53. USE OF PROVISIONAL SUMS AND PRIME COST ITEMS

- 53.1 In respect of every Provisional Sum, **tie's** Representative may order either or both of the following:
- 53.1.1 work to be carried out or goods, materials or services to be supplied by the MUDFA Contractor the value thereof being determined in accordance with Clause 46 (*Changes*) and included in the Contract Price;
 - 53.1.2 work to be carried out or goods, materials or services to be supplied by a Utilities Specialist Contractor and the value thereof included in the Contract Price.
- 53.2 In respect of every Prime Cost Item, **tie's** Representative may instruct the following as **tie** Changes in accordance with Clause 46 (*Changes*):
- 53.2.1 that the MUDFA Contractor employ a Utilities Specialist Contractor for the carrying out of any work or the supply of any goods, materials or services included therein following the MUDFA Contractor having sought at least three competitive quotes from sub-contractors approved by the relevant Utilities and **tie**. The value thereof shall be included in the Contract Price.

53.2.2 that the MUDFA Contractor itself carry out any such work or supply any such goods, materials or services. The value thereof shall be determined in accordance with Clause 46 (*Changes*) and included in the Contract Price.

54. WARRANTIES

54.1 The MUDFA Contractor hereby represents, warrants and undertakes to **tie** that:

54.1.1 none of the MUDFA Contractor, the MUDFA Contractor Parties or any of their respective representatives or Affiliates or professional advisers or employees or anyone acting on behalf of any of them have committed any Prohibited Act;

54.1.2 all information which has been given by any of the MUDFA Contractor, the MUDFA Contractor Parties or any of their respective representatives or Affiliates or advisers or employees or anyone acting on behalf of any of them to any member, officer, employee or adviser of **tie** was, when given true, complete and accurate in all material respects and there is no fact or matter not disclosed in writing to **tie** which:

54.1.2.1 renders any such information untrue, inaccurate or misleading; or

54.1.2.2 might, if disclosed, adversely affect the decision of anyone considering whether or not to contract with the MUDFA Contractor;

54.1.3 the MUDFA Contractor:

54.1.3.1 is duly incorporated under the laws of England and Wales and has the power to own its own assets and carry on its own business; and

54.1.3.2 has full power and authority (and does not require the consent, authority or licence of any third party) to enter into and perform this Agreement which constitutes a valid and binding obligation on the MUDFA Contractor in accordance with its terms; and

54.1.3.3 will not, by performing its obligations under this Agreement, be in breach of any undertaking, agreement or legal obligation of any nature in respect of any third party or of any applicable law

so as to have a material adverse effect on its ability to discharge its obligations under this Agreement;

- 54.1.4 the MUDFA Contractor and the MUDFA Contractor's parent company is not involved in any dispute with HM Inland Revenue, HM Customs & Excise, the European Commission, the Office of Fair Trading, or any other fiscal or regulatory authority in any jurisdiction concerning any matter which could materially and adversely affect the business of the MUDFA Contractor or the MUDFA Works in any way;
- 54.1.5 the MUDFA Contractor does not use any processes and is not engaged in any activities which involve the misuse of any confidential or proprietary information belonging to any third party;
- 54.1.6 no claim is presently being assessed and no litigation, arbitration or proceeding is in progress or, to the best of the knowledge and belief of the MUDFA Contractor pending or threatened, against the MUDFA Contractor or any of its management or assets which might have an adverse effect on the ability of the MUDFA Contractor to perform the obligations in this Agreement;
- 54.1.7 the MUDFA Contractor's provision of any Deliverables and the use by **tie** of any of the Deliverables provided to it as part of the MUDFA Works has not infringed and shall not infringe any third party's Intellectual Property Rights;
- 54.1.8 there has been no material adverse change to the financial condition of the MUDFA Contractor or the MUDFA Contractor's immediate parent company since the audited accounts for the financial year to 31 December 2005 including any matter resulting in a downgrade of the MUDFA Contractor's or the MUDFA Contractor's immediate parent company's credit rating with any commercially acknowledged independent rating agency reporting the construction sector¹; and
- 54.1.9 the performance of the MUDFA Works does not create any situation in which a Conflict of Interest arises for the MUDFA Contractor.

- 54.2 Each of the warranties, representations and undertakings given under Clauses 54.1.1 to 54.1.9 shall be construed as a separate and independent warranty, representation

and undertaking and shall not be limited or restricted by reference to any other terms of this Agreement.

54.3 The MUDFA Contractor shall as soon as reasonably practicable disclose in writing to **tie** any event or circumstance which may arise or become known to it after the Effective Date which is materially inconsistent with any of the warranties, representations or undertakings given under Clauses 54.1.1 to 54.1.9 or which has or is likely to have a material adverse effect on the MUDFA Works.

55. REQUIRED INSURANCES

55.1 The MUDFA Contractor shall, at its own cost, procure that each of the Required Insurances is taken out and comes into effect on the relevant date specified in each "Period of Insurance" set out in Part 1 of Schedule 11 (*Required Insurances*) and shall maintain the Required Insurances in full force and effect until the relevant date specified in each "Period of Insurance" set out in Part 1 of Schedule 11 (*Required Insurances*), provided that each such Required Insurance is available in the EU insurance market at commercially reasonable rates and on commercially reasonable terms to contractors of the same status as at the Effective Date and discipline as the MUDFA Contractor.

55.2 The MUDFA Contractor shall procure that all Required Insurances shall:

55.2.1 be maintained in accordance with Part 1 of Schedule 11 (*Required Insurances*); and

55.2.2 be placed at all times with insurers authorised to carry out insurance business in the United Kingdom and confirmed in writing as acceptable by **tie** (such written acceptance not to be unreasonably withheld or delayed).

55.3 The MUDFA Contractor shall not make any material alteration to the terms of the Required Insurances (including material changes to the level of deductibles) without **tie's** prior approval (which approval shall not be unreasonably withheld). If any such material alteration to the Required Insurances is made, the MUDFA Contractor shall complete the questionnaire set out in Part 3 of Schedule 11 (*Required Insurances*), duly endorsed by its insurance broker. If the insurer makes or attempts to make any material alteration or purports to withdraw cover, the MUDFA Contractor shall promptly give notice of this to **tie**.

- 55.4 The MUDFA Contractor shall ensure that each of its insurance brokers gives **tie** as soon as reasonably practicable after any policy of Required Insurance is taken out, replaced or renewed, a letter of undertaking substantially in the same form as set out in Part 2 of Schedule 11 (*Required Insurances*).
- 55.5 The MUDFA Contractor shall provide satisfactory evidence to **tie** that the Required Insurances have been effected. Thereafter, the MUDFA Contractor shall upon request produce to **tie** receipts for the payment of current insurance premiums or equivalent documentary evidence to confirm that such Required Insurances are being properly maintained, and on the anniversary of the Effective Date and on each subsequent anniversary thereof until the date of expiry or earlier termination, the MUDFA Contractor shall complete an insurance questionnaire set out in Part 3 of Schedule 11 (*Required Insurances*) in relation to the Required Insurances to be taken out by the MUDFA Contractor and submit such completed questionnaire to **tie** as soon as reasonably practicable. If the MUDFA Contractor defaults in insuring or continuing to maintain the Required Insurances, **tie** may insure against any risk in respect of which such default has occurred and recover any premiums from the MUDFA Contractor as a debt immediately due and payable.
- 55.6 The MUDFA Contractor shall:
- 55.6.1 procure that the Required Insurances which are to be maintained by the MUDFA Contractor in accordance with Part 1 of Schedule 11 (*Required Insurances*) contains a waiver of subrogation against **tie** save in respect of fraud or deliberate non-disclosure; and
- 55.6.2 where the MUDFA Contractor is obliged to effect any Required Insurances, not bring any claim or action against **tie** (or any **tie** Party) in respect of any losses, damages, liabilities, costs, expenses and charges in circumstances where and to the extent that the MUDFA Contractor could recover such losses, damages, costs, expenses and charges under such insurance (whether or not such insurance has in fact been effected or, if effected, has been vitiated as a result of any act or omission of the MUDFA Contractor (or any MUDFA Contractor Party), including but not limited to non-disclosure or under-insurance), provided that, to avoid doubt, this Clause 55.6.2 shall not by itself prevent the MUDFA Contractor from claiming against **tie** (or any **tie** Party) in respect of a breach of this Agreement by **tie** or any **tie** Party for any losses, damages, costs, expenses and charges not covered because of the

level of deductibles under such insurance permitted by this Agreement or to the extent such loss or damage exceeds the greater of the insurance placed or the minimum limit of indemnity required in respect of such insurance under Part 1 of Schedule 11 (*Required Insurances*).

55.7 The MUDFA Contractor shall not take any action or fail to take any reasonable action or (insofar as it is reasonably within its power) permit or allow others to take or fail to take any action (in either case including failure to disclose any fact) as a result of which any of the Required Insurances may be rendered void, voidable, unenforceable, suspended or impaired in whole or in part or which may otherwise render any sum paid out under any relevant policy repayable in whole or in part.

55.8 The supply to **tie** of any insurance policy or insurance certificate or renewal certificate or other evidence of compliance with this Clause 55 (*Required Insurances*) shall not imply, or be taken as, acceptance by **tie** that:

55.8.1 the extent of insurance cover is sufficient and its terms are satisfactory; or

55.8.2 in respect of any interests or parties not insured or any risks not insured against, an acceptance by **tie** that the same were uninsurable.

55.9 Neither failure to comply nor full compliance with the provisions of this Clause 55 (*Required Insurances*) shall relieve the MUDFA Contractor of its liabilities and obligations under this Agreement.

55.10 The MUDFA Contractor shall apply any proceeds of any policies of insurance maintained in accordance with Part 1 of Schedule 11 (*Required Insurances*) in satisfaction of the claim, demand, proceeding or liability in respect of which such proceeds are payable (unless already paid direct to the third party or employee by the insurer).

55.11 The MUDFA Contractor undertakes with **tie** in relation to the Required Insurances:

55.11.1 to comply with all requirements of the insurers; and

55.11.2 to give notice to **tie** as soon as reasonably practicable upon the happening of any event which will adversely affect any policy of insurance effected in accordance with this Clause 55 (*Required Insurances*), including the downgrading of the credit rating to A- or lower by Standard & Poors of any party providing any of the Required Insurances.

- 55.12 The MUDFA Contractor shall as soon as reasonably practicable inform **tie** in writing if any of the Required Insurances cease to be maintained and/or cease to be available in the EU insurance market at commercially reasonable rates and on commercially reasonable terms to contractors of the same status as at the Effective Date and discipline as the MUDFA Contractor. In this event, the Parties shall meet to discuss the means by which any risks previously covered by the Required Insurances should be managed, mitigated or controlled. Any increased or additional premium required by insurers by reason of the MUDFA Contractor's own claims record or other acts, omissions, matters or things particular to the MUDFA Contractor shall be deemed to be within commercially reasonable rates and terms.
- 55.13 The MUDFA Contractor shall fully co-operate with any measures reasonably required by **tie**, including (without limitation) completing any proposals for insurance and associated documents or maintaining such insurance at rates above commercially reasonable rates if **tie** undertakes in writing to reimburse the MUDFA Contractor in respect of the net cost of such insurance to the MUDFA Contractor above commercially reasonable rates or, if **tie** effects such insurance at or above commercially reasonable rates, reimbursing **tie** in respect of what the net cost of such insurance to **tie** would have been at commercially reasonable rates and terms.
- 55.14 The MUDFA Contractor acknowledges that **tie** intends to take out certain insurances (the "**OCIP Insurances**"). As soon as reasonably practicable after taking out the OCIP Insurances, **tie** shall provide the MUDFA Contractor with a copy of the relevant policy documents. Subject to Clause 55.15, the MUDFA Contractor agrees to comply with the requirements of the insurers with whom the OCIP Insurances are placed. Such requirements shall include full disclosure of material facts and co-operating with the insurer's requirements regarding any claim in respect of the MUDFA Works. The MUDFA Contractor agrees that it will intimate to **tie** any act, occurrence or failure which may:
- 55.14.1 lead to any claim being made under the OCIP Insurances; or
- 55.14.2 render any of the OCIP Insurances void, voidable, unenforceable, suspended or impaired in whole or in part or which may otherwise render any sum paid out under any relevant policy repayable in whole or in part.
- 55.15 To the extent that the terms of the OCIP Insurances differ from the draft insurance schedule set out in Schedule 4 (*Bills of Quantities*) or the insurer's requirements differ

from those described in Clause 55.14, any difference in such draft insurance schedule and/or such requirements shall be dealt with as a **tie** Change in accordance with Clause 46 (*Changes*).

55.16 The MUDFA Contractor shall not take any action or fail to take any reasonable action or (insofar as it is reasonably within its power) permit or allow others to take or fail to take any action (in either case including failure to disclose any fact) as a result of which any of the OCIP Insurances may be rendered void, voidable, unenforceable, suspended or impaired in whole or in part or which may otherwise render any sum paid out under any relevant policy repayable in whole or in part.

55.17 The MUDFA Contractor shall bear all excesses and deductibles payable in respect of claims made under the OCIP Insurances or the Additional Insurances, where to the extent such claim is due to the act or omission of the MUDFA Contractor or where the MUDFA Contractor or any MUDFA Contractor Party is otherwise responsible for such claim in terms of this Agreement.

55.18 To the extent that the policy of professional indemnity insurance taken out by the MUDFA Contractor pursuant to Clause 55.1 does not include any of the MUDFA Contractor's sub-contractors or sub-consultants as an insured party, the MUDFA Contractor shall procure that each such sub-contractor or sub-consultant shall take out and maintain professional indemnity insurance to the same level as is required of the MUDFA Contractor pursuant to Clause 55.1 where professional indemnity insurance is relevant to the obligations of the relevant sub-contractor or sub-consultant.

55.19 **tie** may ask the MUDFA Contractor to take out and maintain any insurance from time to time in the names of the parties reasonably requested by **tie** (the "**Additional Insurance**"). If Additional Insurance is required, the terms of this Clause 55 (*Required Insurances*) including the provisions which are stated to apply to the "Required Insurances" shall apply with any appropriate adjustment to be agreed between the Parties as a **tie** Change. The MUDFA Contractor shall procure that any Additional Insurance shall:

55.19.1 (if **tie** so requires) contain a provision that **tie** is named as a co-insured party;

55.19.2 provide that any Additional Insurance shall continue in effect and unaltered for the benefit of the insured parties for at least ninety days after written notice by registered mail of any cancellation (including non-renewal), change, modification or lapse for any reason;

55.19.3 contain a provision that requires the insurer to send copies of all notices of cancellation or alteration or suspension or any other notices given under or in relation to the policy to **tie** promptly upon receiving any notices of cancellation or alteration or suspension or any other notices;

55.19.4 contain a provision that a notice of a claim given to the insurer by **tie** (if **tie** is a co-insured) or the MUDFA Contractor under the policy shall, in the absence of manifest error, be accepted by the insurer as valid notification of a claim in respect of the interests of all insured parties;

55.19.5 contain a provision to the effect (on the basis of non-vitiation/severability) that all the provisions of any the Additional Insurance shall operate as if there were a separate policy in effect (save in respect of the sums insured, limits of liability and excesses/deductibles which shall be at the levels stated) for each named insured and that non-compliance with any policy term, condition or warranty and/or misrepresentation or non-disclosure of material information by the MUDFA Contractor or any other co-insured will not affect the rights and/or interests of **tie** under any policies effected as Additional Insurance;

55.20 The MUDFA Contractor shall supply **tie** with copies of every policy document, insurance certificate and renewal certificate relating to any Additional Insurance (or such other evidence of insurances as may be reasonably required by **tie**) and documentary evidence to the effect that the Required Insurances (other than any Additional Insurance) have been taken out and are being maintained as soon as it is available but in any event no later than 7 days (in respect of certificates) and sixty days (in respect of policies) after the inception of the relevant policies, together with evidence of payment of the premiums and any periodic renewal certificates.

55.21 The MUDFA Contractor shall inform **tie** in writing as soon as reasonably practicable after it receives a claim or becomes aware of the occurrence of any event that may give rise to a claim under any Additional Insurance and will ensure that **tie** is kept fully informed of subsequent action and developments concerning the claim; such written information shall not be required in relation to any claim of less than £50,000 (indexed). The MUDFA Contractor shall take such steps as are necessary or appropriate to ensure that each MUDFA Contractor Party, in respect of any event or claim of a like nature arising out of or relating to the operation or responsibility of that MUDFA Contractor Party or any event or claim of which they become aware,

takes in relation to the MUDFA Contractor like action to that which the MUDFA Contractor is required to take under this Clause 55.21 in relation to **tie**, and shall inform **tie** promptly of information thus received from any MUDFA Contractor Party.

55.22 Without prejudice to any other provision of this Agreement, the MUDFA Contractor undertakes to the extent it has the right to do so under the relevant policy that it will not (and that each of the MUDFA Contractor Parties to the extent each respectively has the right to do so under the relevant policy will not) settle any Additional Insurance claim above £50,000 (indexed) without the prior written agreement of **tie** (such agreement not to be unreasonably withheld or delayed).

55.23 Subject always to the requirements of the Required Insurances, the OCIP Insurances and/or any Additional Insurance:

55.23.1 if **tie** receives any notice, demand, letter or other document concerning any claim from which it appears that **tie** is or may become entitled to indemnification under this Agreement ("**Claim**"), **tie** shall notify the MUDFA Contractor as soon as reasonably practicable and shall supply a copy of the relevant Claim to the MUDFA Contractor.

55.23.2 where it appears that **tie** is, or may become, entitled to indemnification from the MUDFA Contractor in respect of the liability arising out of the act or omission which is the subject of the Claim, the MUDFA Contractor shall take conduct of any defence, dispute, compromise or appeal of the Claim and of any incidental negotiations and shall be entitled to resist the Claim in the name of **tie** and **tie** will give the MUDFA Contractor all reasonable co-operation, access and assistance for the purposes of considering and resisting such Claim.

55.24 In relation to any Claim subject to Clause 55.23.2:

55.24.1 the MUDFA Contractor shall keep **tie** fully informed and consult with it about material elements of the conduct of the Claim;

55.24.2 the MUDFA Contractor shall not bring the name of **tie** into disrepute; and

55.24.3 the MUDFA Contractor shall not pay or settle such Claims without the prior written consent of **tie**, such consent not to be unreasonably withheld or delayed.

- 55.25 **tie** shall be free to take steps in the proceedings, pay or settle any Claim on such terms as it thinks fit (and without prejudice to its rights and remedies under this Agreement) if the MUDFA Contractor fails to notify **tie** of its intention to conduct the relevant Claim within 20 Business Days of the notice from **tie** under Clause 55.23.1 above or the MUDFA Contractor notifies **tie** that it does not intend to take conduct of the Claim.
- 55.26 **tie** shall be free at any time to give notice to the MUDFA Contractor that it is retaining or taking over (as the case may be) the conduct of any defence, dispute, compromise or appeal of any Claim (or of any incidental negotiations) to which Clause 55.23.2 applies. On receipt of such notice the MUDFA Contractor shall promptly take all steps necessary to transfer the conduct of such claim to **tie** and shall provide to **tie** all reasonable co-operation, access and assistance for the purposes of considering and resisting such Claim. If **tie** gives any notice pursuant to this Clause 55.26 then the MUDFA Contractor shall not be released from any liability under the relevant indemnity in respect of such Claim. **tie** shall keep the MUDFA Contractor reasonably informed as to the progress and status of any such Claim until such Claim is settled, withdrawn, discontinued or otherwise disposed of.
- 55.27 If, in controlling and contesting any Claim, **tie** takes or fails to take any action in relation to such Claim which it might reasonably be expected to take or not take (as the case may be) which terminates or reduces any entitlement of the MUDFA Contractor to recover any part of the Claim from any insurer under any of the Required Insurances, the OCIP Insurances and/or any Additional Insurance, or causes the MUDFA Contractor to incur any additional direct costs in respect of such Claim, which the MUDFA Contractor would not otherwise have incurred (provided that such additional direct costs are demonstrable, have not arisen because of the MUDFA Contractor or any MUDFA Contractor Party's act or omission, and the MUDFA Contractor has used reasonable endeavours to mitigate such additional direct costs), the liability of the MUDFA Contractor to indemnify **tie** in respect of such Claim shall be reduced by an amount equal to such part or, as the case may be, the amount of the reduction thereof (except in the case where **tie** could not reasonably have been expected to have known that the MUDFA Contractor's entitlement could be so terminated or reduced or that the MUDFA Contractor would have incurred such additional direct costs).
- 55.28 If the MUDFA Contractor pays to **tie** an amount in respect of an indemnity and **tie** subsequently recovers (whether by payment, discount, credit, saving, relief, other benefit or otherwise) a sum which is directly referable to the fact, matter, event or circumstances giving rise to the Claim, **tie** shall forthwith repay to the MUDFA Contractor whichever is the lesser of:

55.28.1 an amount equal to the sum recovered (or the value of the saving or benefit obtained) less any out-of-pocket costs and expenses properly incurred by **tie** in recovering the same; and

55.28.2 the amount paid to **tie** by the MUDFA Contractor in respect of the Claim under the relevant indemnity;

provided that there shall be no obligation on **tie** to pursue such recovery and that the MUDFA Contractor is repaid only to the extent that the amount of such recovery aggregated with any sum recovered from the MUDFA Contractor exceeds any loss sustained by **tie** in respect of the Claim.

56. INDEMNITIES, LIABILITY AND SOLE REMEDY

56.1 Subject to the exception set out in Clause 56.2, the MUDFA Contractor shall indemnify **tie**, CEC and its officers, agents and employees ("**Indemnified Parties**") from and against any and all claims, suits, losses, liabilities damages, penalties, fines, forfeitures, and the costs and expenses incident thereto (including without limitation any legal costs of defence) which any of the Indemnified Parties may hereafter incur, become responsible for, or pay out as a result of:

56.1.1 any of the MUDFA Contractor's, or its employees' or any MUDFA Contractor Party's negligent or wilful acts, or negligent or wilful omissions in the performance of the MUDFA Works; and/or

56.1.2 breach of any term or provision of this Agreement including any Law.

Such claims, suits, losses, liabilities damages, penalties, fines, forfeitures, and the costs and expenses shall include such claims, suits, losses, liabilities damages, penalties, fines, forfeitures, and the costs and expenses in respect of:

- (a) death or injury to any person;
- (b) loss of or damage to any property;
- (c) loss of or damage to any part of the MUDFA Works;
- (d) causing **tie** and/or CEC to be in breach of any Law; or
- (e) damage to any Apparatus caused by the MUDFA Contractor; or

- (f) causing **tie** and/or CEC to be in breach of any agreement with the Utilities in respect of the MUDFA Works or the Utilities Works; or
- (g) causing **tie** and/or CEC to be in breach of any of the Third Party Agreements and any other undertakings which have been given by **tie** and/or CEC to any third party and which have been notified to the MUDFA Contractor; or
- (h) causing **tie** and/or CEC to be in breach of any Land Consent; or
- (i) infringement or alleged infringement of a third party's Intellectual Property Rights.

56.2 The exception referred to in Clause 56.1, which is the responsibility of **tie**, is death of, or injury to, persons or loss of or damage to property resulting from any act, neglect, or breach of statutory duty by **tie**, its agents, servants or other contractors (not being employed by the MUDFA Contractor or any Sub-Contractor) or for or in respect of any claims, demands, proceedings, damages, costs, charges and expenses in respect thereof or in relation thereto.

56.3 The MUDFA Contractor's liability to indemnify **tie** under Clause 56.1 shall be reduced in proportion to the extent that the act or neglect of **tie**, its agents, servants or other contractors (not being employed by the MUDFA Contractor or any Sub-Contractor) may have contributed to the said death, injury, loss or damage.

56.4 Notwithstanding the generality of Clause 56.1, if any of the Utilities suffers interruption or loss of service arising as a result of a breach of any of the terms of this Agreement by the MUDFA Contractor and/or as a result of any negligent act or omission of the MUDFA Contractor (and/or any MUDFA Contractor Party), the MUDFA Contractor shall indemnify **tie** from any loss, costs, expense or damage including Indirect Losses incurred by such Utilities as a result of any liability under any applicable customer charter requirements to customers and/or under any contract with a customer, for such interruption or loss of service.

56.5 Notwithstanding the generality of Clause 56.1, in the event that any of the Utilities suffers any loss, costs, expense or damage as a result of a claim made under any Law which may be applicable to the MUDFA Works and/or the rules and regulations of public bodies, as a result of the breach of any of the terms of this Agreement by the MUDFA Contractor and/or as a result of the negligent act or omission of the MUDFA Contractor (and/or any MUDFA Contractor Party), the MUDFA Contractor

shall indemnify **tie** from any loss, costs, expense or damage incurred by such Utility as a result of such claim.

56.6 Notwithstanding the generality of Clause 56.1, the MUDFA Contractor shall indemnify **tie** from all loss, costs, claims, expenses and damages that may arise directly or indirectly as a result of any adverse impact or effect which the MUDFA Works may have upon the property interests, liabilities and statutory obligations of Forth Ports:

56.6.1 in respect of the sea defences, quay walls or harbour edges in so far as forming part of or situated adjacent to the Forth Ports Site or in any way affected by the MUDFA Works, including without prejudice to the generality, all liability upon Forth Ports arising by virtue of the Coast Protection Act 1949; and

56.6.2 relative to the sea bed, including all liability upon Forth Ports arising by virtue of the Forth Ports Authority Order Confirmation Act 1969 and the status of those parts of the Firth of Forth as a site of special scientific interest.

56.7 Notwithstanding the generality of Clause 56.1, the MUDFA Contractor shall indemnify **tie** from all loss, costs, claims, damages and expenses that may arise as a result of any adverse impact or effect which the MUDFA Works may have upon the property interests, liabilities and obligations of Stakis:-

56.7.1 in relation to the flood defences in so far as forming part of or situated adjacent to the Stakis Site or in any way affected by the MUDFA Works; and

56.7.2 resulting in an adverse change to the existing flood defences for the Stakis Property.

56.8 Nothing in this Agreement shall exclude or limit the liability:

56.8.1 of either Party for:

56.8.1.1 death or personal injury caused by that Party's negligence or the negligence of anyone for whom that Party is vicariously liable; or

56.8.1.2 fraud or fraudulent misrepresentation;

56.8.2 of the MUDFA Contractor, for any breach of this Agreement or any delict (including negligence) or other liability arising prior to termination of this Agreement;

provided that nothing in this Clause 56.8 shall confer on either Party rights or remedies that they would not otherwise have.

56.9 Subject to Clause 56.8, neither party shall be entitled to claim damages for breach of this Agreement, in delict (including negligence), breach of statutory duty or on any other basis whatsoever to the extent that such damages claimed by that Party are for Indirect Losses suffered by that Party provided that for the avoidance of doubt, nothing in this Clause 56.9 shall affect either Party's liability to the other Party, in respect of any claim, action, proceedings or demand against such other Party by a third party in connection with any Indirect Loss suffered. Such claim, action, proceedings or demand shall include any claim, action, proceedings or demand received by **tie** and/or CEC from any of the Utilities or received in relation to any breach of the Third Party Agreements or the Land Consents.

56.10 The MUDFA Contractor shall not be relieved or excused of any responsibility, liability or obligation under this Agreement by the appointment of any MUDFA Contractor Party. The MUDFA Contractor shall, as between itself and **tie**, be responsible for the selection, pricing, performance, acts, defaults, omissions, breaches, delict and offences of any MUDFA Contractor Party. All references in this Agreement to any act, default, omission, breach, delict or offence of the MUDFA Contractor shall be construed to include any such act, default, omission, breach or delict of any MUDFA Contractor Party.

56.11 The Parties acknowledge and agree that the only rights available to them to terminate this Agreement are those expressly set out in this Agreement and that neither Party shall be entitled to exercise a right to terminate or rescind or accept the repudiation of this Agreement under any other right whether arising in common law or statute or otherwise howsoever (other than for fraud or a fraudulent misrepresentation).

56.12 The Parties further acknowledge and agree that the express rights provided in this Agreement in relation to termination and the calculation and payment of amounts due following such termination are exclusive and are in place of (and not cumulative with) any other rights or remedies which might arise as a consequence of such termination. The Parties hereby waive all other rights and remedies arising from such

termination, whether express or implied, arising by common law (including in delict), by statute or otherwise howsoever provided that nothing in this Clause 56.12 shall exclude the right of the Parties to claim remedies expressly conferred on them by this Agreement.

56.13 Except where otherwise stated the MUDFA Contractor shall pay all tonnage and other royalties rent and other payments or compensation (if any) for getting stone sand, gravel, clay or other materials required for the MUDFA Works.

57. DEFAULT OF THE MUDFA CONTRACTOR

57.1 In the event that the MUDFA Contractor:

57.1.1 an Insolvency Event occurs;

57.1.2 breaches any material provision or requirement of the Agreement and fails to remedy such breach within 20 Business Days where, in the opinion of **tie** (acting reasonably), such breach is remediable; or

57.1.3 conducts itself in a manner which **tie**, acting reasonably, considers to be incompatible with the performance of the MUDFA Works and/or in such a manner so as to wilfully detract from the image and reputation of **tie**, CEC, the Scottish Ministers or any project related to the performance of the MUDFA Works; or

57.1.4 breaches Clauses 72.1, 72.2, 72.3 or 72.6 or

57.1.5 fails to resolve a Conflict of Interest in accordance with Clause 69 (*Conflicts of Interest*) to the satisfaction of **tie**, acting reasonably; or

57.1.6 has reported a change in the legal status of the MUDFA Contractor or a Change in Control of the MUDFA Contractor which is materially prejudicial to carrying out and completing the MUDFA Works; or

57.1.7 has abandoned the MUDFA Works as a whole for a period of 20 Business Days without due cause; or

57.1.8 without reasonable excuse has failed to commence the Pre-Construction Services, Construction Services and/or Construction Works in accordance with Clause 8 (*Commencement of Pre-Construction Services, Gateway to Commencement of the Construction Services and Issue of Works Orders*); or

57.1.9 has suspended the progress of the MUDFA Works without due cause for fourteen days after receiving from **tie's** Representative written notice to proceed; or

57.1.10 has failed to remove goods or materials from the Site or to pull down and replace work for fourteen days after receiving from **tie's** Representative written notice that the said goods materials or work has been condemned and rejected by **tie's** Representative; or

57.1.11 despite previous warnings by **tie's** Representative in writing, is failing to proceed with the MUDFA Works with due diligence or is otherwise persistently in breach of its obligations under the Agreement;

then **tie** may after giving 20 Business Days notice in writing to the MUDFA Contractor specifying the event relied on, determine the MUDFA Contractor's employment under this Agreement, and/or enter upon the MUDFA Works and any other parts of the Site and expel the MUDFA Contractor therefrom without thereby avoiding the Agreement or releasing the MUDFA Contractor from any of its obligations or liabilities under the Agreement.

57.2 Where **tie** has entered upon the MUDFA Works and any other parts of the Site as set out in Clause 57.1, **tie** may:

57.2.1 complete the MUDFA Works itself; or

57.2.2 employ any other contractor to complete the MUDFA Works;

and in either case may use for such completion any of the MUDFA Contractor's Equipment, Temporary Works, goods and materials on any part of the Site. For this purpose **tie** shall continue to enjoy its right to copy and use all drawings specifications and other documents made by or on behalf of the MUDFA Contractor.

tie may at any time sell any of the said MUDFA Contractor's Equipment, Temporary Works and unused goods and materials and apply the proceeds of sale in or towards the satisfaction of any sums due or which may become due to it from the MUDFA Contractor under the Agreement.

57.3 Where **tie** has entered upon the MUDFA Works and any other parts of the Site, the MUDFA Contractor shall, if so instructed by **tie's** Representative in writing within 7 days of such entry, assign to **tie** any agreement which the MUDFA Contractor may

have entered into for the supply of any goods or materials and/or for the carrying out of any work for the purposes of the Agreement.

57.4 No compensation shall be payable by **tie** to the MUDFA Contractor for termination under this Clause 57 (*Default of MUDFA Contractor*) whether under contract, delict (including negligence), breach of (or compliance with) statutory duty, restitution or otherwise but without prejudice to payments due under Clause 57.7.

57.5 As soon as may be practicable after any such entry and expulsion by **tie**, **tie's** Representative shall fix and determine as at the time of such entry and expulsion:

57.5.1 the amount (if any) which has been reasonably earned by the MUDFA Contractor in respect of work actually done by it under the Agreement; and

57.5.2 the value of any unused or partially used goods and materials which are under the control of **tie**;

and shall certify accordingly.

57.6 If **tie** enters upon the MUDFA Works and any other parts of the Site and expels the MUDFA Contractor in accordance with this Clause 57 (*Default of the MUDFA Contractor*), **tie** shall not be liable to pay the MUDFA Contractor any money under the Agreement (whether in respect of amounts certified by **tie's** Representative or otherwise) including any sums certified under Clause 57.5 unless or until **tie's** Representative certifies that an amount is due to the MUDFA Contractor under Clause 57.7.

57.7 **tie's** Representative shall certify the difference between:

57.7.1 such sum as would have been due to the MUDFA Contractor if the MUDFA Contractor had completed the MUDFA Works together with any proceeds of sale under Clause 57.2; and

57.7.2 the costs of completing the MUDFA Works (whether or not the MUDFA Works are completed under a separate contract) damages for delay (if any) and all other expenses properly incurred by **tie** provided that **tie** shall use reasonable endeavours to minimise and mitigate such costs and expenses.

57.8 Such difference as is certified by **tie's** Representative in Clause 57.7 shall be a debt due to **tie** or the MUDFA Contractor as the case may be.

- 57.9 If **tie's** Representative is satisfied at any time prior to the completion of the MUDFA Works that such sum as calculated under Clause 57.7.2 exceeds such sum as calculated under Clause 57.7.1, **tie's** Representative may issue an interim certificate to that effect notwithstanding that the MUDFA Works have not been completed and such interim certificate shall be considered a debt due from the MUDFA Contractor to **tie**.
- 57.10 Every certificate issued by **tie's** Representative pursuant to this Clause 57 (*Default of MUDFA Contractor*) shall be sent to the MUDFA Contractor with such detailed explanation as may be necessary.
- 57.11 The provisions of this Clause 57 (*Default of MUDFA Contractor*) are without prejudice to any other rights and remedies of **tie**.
- 57.12 The MUDFA Contractor shall immediately notify **tie** of
- 57.12.1 any resolution or decision by the MUDFA Contractor or the board of directors of the MUDFA Contractor or a decision by any director of the MUDFA Contractor to seek legal or financial advice pertaining to the solvency of the MUDFA Contractor; and/or
- 57.12.2 any presentation of any petition for the purpose of winding up the MUDFA Contractor or any petition for an administration order.

58. TERMINATION OR SUSPENSION FOR TIE DEFAULT

- 58.1 If a **tie** Default has occurred and the MUDFA Contractor wishes to terminate this Agreement, the MUDFA Contractor must serve a termination notice on **tie** within thirty days of becoming aware of the **tie** Default. Failure to do so shall be a waiver of the right to terminate.
- 58.2 The MUDFA Contractor shall specify in the termination notice the type of the **tie** Default which has occurred entitling the MUDFA Contractor to terminate.
- 58.3 Provided the MUDFA Contractor has complied with Clauses 58.1 and 58.2, this Agreement shall terminate on the day falling sixty days after the date on which **tie** receives the termination notice, unless **tie** rectifies the **tie** Default within sixty days of receipt of the termination notice.
- 58.4 The MUDFA Contractor shall not be entitled to, and shall not purport to, terminate this Agreement or accept any repudiation of this Agreement, except as expressly

provided in this Clause 58 (*Termination or Suspension for tie Default*) or Clause 59 (*Termination by Reason of Force Majeure*).

- 58.5 Upon expiry of the sixty days notice referred to in Clause 58.3 and notwithstanding the provisions of Clause 43 (*Non-Removal of Materials and Contractor's Equipment*) the MUDFA Contractor shall with all reasonable despatch remove from the Site all MUDFA Contractor's Equipment. In the event of any failure so to do **tie** shall have like powers to those contained in Clause 43.3 to dispose of any MUDFA Contractor's Equipment.
- 58.6 No compensation shall be payable by **tie** to the MUDFA Contractor for termination of this Agreement in terms of this Clause 58 (*Termination or Suspension for tie Default*) whether under contract, delict (including negligence), breach of (or compliance with) statutory duty, restitution or otherwise but without prejudice to payments due under Clause 58.7.
- 58.7 Upon termination of the MUDFA Contractor's employment pursuant to Clause 58.3 and following receipt of a valid VAT invoice, **tie** shall pay the MUDFA Contractor (in so far as such amounts or items have not already been covered by payments on account made to the MUDFA Contractor) the value of all work carried out prior to the date of termination and in addition:
- 58.7.1 the amounts payable in respect of any preliminary items so far as the work or service comprised therein has been carried out or performed and a proper proportion of any such items which have been partially carried out or performed;
- 58.7.2 the cost of materials or goods reasonably ordered for the MUDFA Works which have been delivered to the MUDFA Contractor or of which the MUDFA Contractor is legally liable to accept delivery (such materials or goods becoming the property of **tie** upon such payment being made to the MUDFA Contractor);
- 58.7.3 the reasonable cost of removal under Clause 58.5; and
- 58.7.4 all other expenses properly, demonstrably and reasonably incurred by the MUDFA Contractor arising from the termination of this Agreement..

Provided that the MUDFA Contractor shall use all reasonable endeavours to minimise and mitigate any costs referred to in this Clause 58.7 and **tie** shall not be

liable to pay the MUDFA Contractor for such costs to the extent that the MUDFA Contractor has failed to minimise or mitigate such costs or to the extent that such costs have arisen out of the MUDFA Contractor's breach of this Agreement or any negligent or wilful act or omission by the MUDFA Contractor. Any payment to be made under this Clause 58.7 shall be treated as a final account and the provisions of Clauses 49.7 and 49.8 shall apply.

58.8 If **tie** shall fail to pay the MUDFA Contractor in full any amount properly due and payable under this Agreement by the final date for payment in accordance with the requirements of Clause 49 (*Payment*) and no effective notice to withhold payment has been given by **tie** to the MUDFA Contractor, the MUDFA Contractor may, after giving **tie** sixty days' notice in writing of the same, stating the ground or grounds on which it is intended to suspend performance, suspend the performance of the MUDFA Works until payment in full is made by **tie**. **tie** shall pay any reasonable, direct and demonstrable costs incurred by the MUDFA Contractor during any such period of suspension.

59. TERMINATION BY REASON OF FORCE MAJEURE

59.1 Neither Party shall be entitled to bring a claim for a breach of obligations under this Agreement by the other Party or incur any liability to the other Party for any losses or damages incurred by that other Party to the extent that a Force Majeure Event occurs and such party is directly prevented from carrying out such obligations by that Force Majeure Event provided that such prohibition on bringing a claim and exclusion of liability shall not operate if and to the extent that:

59.1.1 the Affected Party could, by the exercise of reasonable foresight and diligence, have prevented or reduced the effect of the Force Majeure Event;
and

59.1.2 the Affected Party could, whether before or after the occurrence of the Force Majeure Event, have reduced or eliminated the resulting breach of its obligations under this Agreement by taking reasonable steps.

59.2 On the occurrence of a Force Majeure Event, the Affected Party shall notify the other Party as soon as reasonably practicable, specifying details of the Force Majeure Event and providing evidence of its effect on the obligations of the Affected Party and any action proposed to remove or mitigate its effect.

- 59.3 The Parties shall enter into bona fide discussions with a view to alleviating the effects of such Force Majeure Event, and if the terms or measures to remove the effect of the Force Majeure Event cannot be agreed on or before the date falling 12 months after the date of the commencement of the Force Majeure Event or by the end of such longer period as the Parties may have agreed, or such Force Majeure Event is continuing or its consequence remains such that the Affected Party is unable to comply with all or a material part of its obligations under this Agreement for a period of more than 12 months after the date of the commencement of the Force Majeure Event or by the end of such longer period as the Parties may have agreed, either Party shall have the option to terminate this Agreement by written notice to the other.
- 59.4 The Parties shall at all times following the occurrence of a Force Majeure Event use all reasonable endeavours to prevent and mitigate the effects of any delay to the performance of the MUDFA Works and the MUDFA Contractor shall at all times during which a Force Majeure Event is subsisting take all steps in accordance with Good Industry Practice to overcome or minimise the consequences of the Force Majeure Event.
- 59.5 The Affected Party shall notify the other party as soon as reasonably practicable after the Force Majeure Event ceases or no longer causes the Affected Party to be unable to comply with its obligations under this Agreement. Following such notification, this Agreement shall continue to be performed on the terms existing immediately prior to the occurrence of the Force Majeure Event.
- 59.6 No compensation shall be payable by either Party for termination of this Agreement in terms of this Clause 59 (*Termination by Reason of Force Majeure*) whether under contract, delict (including negligence), breach of (or compliance with) statutory duty, restitution or otherwise but without prejudice to payments due under Clause 59.7.
- 59.7 Upon termination of the MUDFA Contractor's employment pursuant to Clause 59.3 **tie** shall be under the same obligations with regard to payment as if termination on the grounds of **tie** default had occurred in accordance with the provisions of Clause 58 (*Termination or Suspension for tie Default*).

60. TERMINATION DURING THE PRE-CONSTRUCTION PHASE

- 60.1 During the Pre-Construction Phase, **tie** may terminate this Agreement at any time and for whatever reason upon giving written notice to the MUDFA Contractor that this

Agreement shall terminate on the date falling thirty days after the date of service of such written notice.

- 60.2 Upon expiry of the thirty days notice referred to in Clause 60.1 and notwithstanding the provisions of Clause 43 (*Non-Removal of Materials and Contractor's Equipment*) the MUDFA Contractor shall with all reasonable despatch remove from the site all MUDFA Contractor's Equipment.
- 60.3 No compensation shall be payable by **tie** to the MUDFA Contractor for termination of this Agreement in terms of this Clause 60 (*Termination During the Pre-Construction Phase*), whether under contract, delict (including negligence), breach of (or compliance with) statutory duty, restitution or otherwise but without prejudice to payments due under Clause 60.4.
- 60.4 Upon termination of the MUDFA Contractor's employment pursuant to Clause 60.1 **tie** shall be under the same obligations with regard to payment as if termination on the grounds of **tie** default had occurred in accordance with the provisions of Clause 58 (*Termination or Suspension for tie Default*).

61. TERMINATION FOR CORRUPT GIFTS AND PAYMENTS

- 61.1 The MUDFA Contractor or anyone employed by it or acting on its behalf (including any Sub-Contractor) shall not commit any Prohibited Act.
- 61.2 If the MUDFA Contractor, or anyone employed by it or acting on its behalf (including any Sub-Contractor), commits any Prohibited Act, then **tie** shall be entitled to act in accordance with this Clause 61 (*Termination for Corrupt Gifts and Fraud*).
- 61.3 If a Prohibited Act is committed by the MUDFA Contractor or by an employee of the MUDFA Contractor not acting independently of the MUDFA Contractor, then **tie** may terminate this Agreement by giving notice to the MUDFA Contractor.
- 61.4 If a Prohibited Act is committed by an employee of the MUDFA Contractor acting independently of the MUDFA Contractor, then **tie** may give notice to the MUDFA Contractor of termination and this Agreement will terminate, unless within thirty days of receipt of such notice the MUDFA Contractor terminates that employee's employment and (if necessary) procures the performance of the relevant part of the MUDFA Works by another person.

- 61.5 If a Prohibited Act is committed by anyone acting on behalf of the MUDFA Contractor (excluding employees of the MUDFA Contractor but including any Sub-Contractor, and their employees) and not acting independently of the MUDFA Contractor, then **tie** may give notice to the MUDFA Contractor of termination and this Agreement will terminate.
- 61.6 If a Prohibited Act is committed by anyone acting on behalf of the MUDFA Contractor (excluding employees of the MUDFA Contractor but including any Sub-Contractor and their employees) and acting independently of the MUDFA Contractor, then **tie** may give notice to the MUDFA Contractor of termination and this Agreement will terminate, unless within thirty days of receipt of such notice the MUDFA Contractor terminates that party's contract and procures the performance of the relevant part of the MUDFA Works by another person.
- 61.7 Any notice of termination under this Clause 61 (*Termination for Corrupt Gifts and Fraud*) shall specify:
- 61.7.1 the nature of the Prohibited Act;
- 61.7.2 the identity of the person whom **tie** believes has committed the Prohibited Act; and
- 61.7.3 the date on which this Agreement will terminate, in accordance with the applicable provision of this Clause 61 (*Termination for Corrupt Gifts and Fraud*).
- 61.8 No compensation shall be payable by **tie** to the MUDFA Contractor for termination of this Agreement whether under contract, delict (including negligence), breach of (or compliance with) statutory duty, restitution or otherwise but without prejudice to payments due under Clause 61.9.
- 61.9 Upon termination of the MUDFA Contractor's employment pursuant to this Clause 61 (*Termination for Corrupt Gifts and Payments*), **tie** shall be under the same obligations with regard to payment as if termination on the grounds of MUDFA Contractor Default had occurred in accordance with the provisions of Clause 57 (*Default of the MUDFA Contractor*) and the provisions of Clauses 57.2 and 57.3 shall also apply.

62. EFFECTS OF TERMINATION OR EXPIRY

- 62.1 Subject to the provisions of Clauses 57 (*Default of the MUDFA Contractor*), 58 (*Termination or Suspension for tie Default*), 59 (*Termination by Reason of Force Majeure*), 60 (*Termination During the Pre-Construction Phase*) and 61 (*Termination for Corrupt Gifts and Payments*), the MUDFA Contractor shall not have any other right or remedy against tie on termination of this Agreement.
- 62.2 Subject to any exercise by tie of its rights to perform, or to procure a third party to perform, the obligations of the MUDFA Contractor, the Parties shall continue to perform their obligations under this Agreement, notwithstanding the giving of any notice of default or breach or termination notice, until the termination of this Agreement becomes effective. .
- 62.3 Any termination or expiry of this Agreement shall not prejudice or affect the accrued rights or claims of either Party.
- 62.4 On expiry of this Agreement or any earlier termination of this Agreement for whatever reason, all Deliverables and any information provided by tie to the MUDFA Contractor shall be returned to tie.
- 62.5 This Agreement shall terminate automatically on the expiry of this Agreement unless it shall have been terminated earlier in accordance with the provisions of this Agreement. The MUDFA Contractor shall not be entitled to any compensation on expiry of the Agreement.
- 62.6 Expiry or termination of the Agreement shall not affect the MUDFA Contractor's obligations under Clauses 2 (*Contractor's General Responsibilities*), 3 (*Obligations in respect of the Utilities*), 40 (*Notification of Substantial Completion*) 41 (*Work Outstanding*) 42 (*Contractor to Search*) 44 (*Defects Correction Certificate*) 49 (*Payment*), 55 (*Required Insurances*), 56 (*Indemnities, Liability and Sole Remedy*), 57 (*Default of MUDFA Contractor*), 58 (*Termination or Suspension for tie Default*), 59 (*Termination by Reason of Force Majeure*), 60 (*Termination During the Pre-Construction Phase*), 61 (*Termination for Corrupt Gifts and Payments*), 62 (*Effects of Termination or Expiry*), 63 (*Dispute Resolution Procedure and Jurisdiction*), 68 (*Audit*), 71 (*Copyright and Intellectual Property*) and 72 (*Confidentiality*). Those obligations shall continue in full force and effect.

63. DISPUTE RESOLUTION PROCEDURE AND JURISDICTION

- 63.1 The Parties agree that any dispute or difference arising from or in connection with this Agreement shall be dealt with in accordance with the provisions set out in Schedule 9 (*Dispute Resolution Procedure*).
- 63.2 Subject to Clause 63.1, the Parties hereby irrevocably submit to the exclusive jurisdiction of the Court of Session in relation to this Agreement, any such document and any such matter.
- 63.3 This Agreement, any document completed or to be completed in accordance with its provisions and any matter arising from it or any such document shall be governed by and construed in accordance with Scots law.

64. LABOUR-TAX AND LANDFILL TAX FLUCTUATIONS

- 64.1 The rates and prices contained in the Bills of Quantities shall be deemed to take account only of the levels and incidence in force 30 days prior to the date for return of tenders of:
- 64.1.1 the taxes, levies, contributions, premiums or refunds (including national insurance contributions but excluding income tax and any levy payable under the Industrial Training Act 1982 or any statutory re-enactment or amendment thereof for the time being in force) which are by law payable by or to the MUDFA Contractor or anyone carrying out any part of the MUDFA Works under the instruction of the MUDFA Contractor in respect of their workpeople engaged on the Agreement;
 - 64.1.2 any landfill tax payable by the MUDFA Contractor or anyone carrying out any part of the MUDFA Works under the instruction of the MUDFA Contractor pursuant to the Finance Act 1996 (Sections 39-71 and Schedule 5) and the Landfill Tax Regulations 1996 or any statutory re-enactment or amendment thereof for the time being in force;
 - 64.1.3 any aggregate levy payable by the MUDFA Contractor or anyone carrying out any part of the MUDFA Works under the instruction of the MUDFA Contractor pursuant to the Finance Act 2001 or any statutory re-enactment or amendment thereof for the time being in force;

and shall not take account of any level or incidence of the aforesaid matters foreseeable or known to take effect at some later date.

- 64.2 If after the date 30 days prior to the date for return of tenders there shall occur any change in the level and/or incidence of any such taxes, levies, contributions, premiums or refunds, the MUDFA Contractor shall so inform **tie's** Representative and the net increase or decrease shall be taken into account in arriving at the Contract Price. The MUDFA Contractor shall supply the information necessary to support any consequent adjustment to the Contract Price. All certificates for payment issued after submission of such information shall take due account of the additions or deductions to which such information relates.

65. VALUE ADDED TAX

- 65.1 The MUDFA Contractor shall be deemed to have allowed in its tender for the tax payable by it as a taxable person to the Commissioners of Customs and Excise being tax chargeable on any taxable supplies to **tie** which are to be made under the Agreement.
- 65.2 All certificates issued by **tie's** Representative under Clause 49 (*Payment*) shall be net of Value Added Tax.

In addition to the payments due under such certificates **tie** shall separately identify and pay to the MUDFA Contractor any Value Added Tax properly chargeable by the MUDFA Contractor on the supply to **tie** of any goods and/or services by the MUDFA Contractor under the Agreement.

- 65.3 If any dispute, difference or question arises between either **tie** or the MUDFA Contractor and the Commissioners of Customs and Excise in relation to any tax chargeable or alleged to be chargeable in connection with the Agreement or the MUDFA Works each shall render to the other such support and assistance as may be necessary to resolve the dispute, difference or question.
- 65.4 Clause 63 (*Dispute Resolution Procedure and Jurisdiction*) shall not apply to any dispute, difference or question arising under this Clause 65 (*Value Added Tax*).

66. CDM REGULATIONS 1994

- 66.1 In this Clause 66 (*CDM Regulations 1994*):

"Regulations" means the Construction (Design and Management) Regulations 1994 or any statutory re-enactment or amendment thereof for the time being in force;

"Planning Supervisor" and **"Principal Contractor"** mean the persons so described in regulation 2(1) of the Regulations;

"Health and Safety Plan" means the plan prepared by virtue of regulation 15 of the Regulations.

66.2 Where and to the extent that the Regulations apply to the MUDFA Works and

66.2.1 **tie's** Representative is appointed Planning Supervisor and/or;

66.2.2 the MUDFA Contractor is appointed Principal Contractor in respect of the MUDFA Works and any Utilities Works where such Utilities Works are being carried out at the same time and in the same Work Site as the MUDFA Works;

then in taking any action as such they shall state in writing that the action is being taken under the Regulations.

66.3 Any action under the Regulations taken by either the Planning Supervisor or the Principal Contractor and in particular any alteration or amendment to the Health and Safety Plan shall be deemed to be a **tie's** Representative's instruction pursuant to Clause 14 (*Work to be to Satisfaction of tie*). Provided that the MUDFA Contractor shall in no event be entitled to any additional payment and/or extension of time in respect of any such action to the extent that it results from any action, lack of action or default on the part of the MUDFA Contractor.

66.4 If any such action of either the Planning Supervisor or the Principal Contractor could not in the MUDFA Contractor's opinion reasonably have been foreseen by an experienced contractor the MUDFA Contractor shall as early as practicable give written notice thereof to **tie's** Representative.

67. NOTICE OF ACCIDENTS

67.1 In the event of any notifiable accident or dangerous occurrence arising at the Site during the carrying out of the MUDFA Works, the MUDFA Contractor shall be

responsible for reporting to the Health and Safety Executive under the Reporting of Injuries and Diseases and Dangerous Occurrences Regulations 1985.

68. AUDIT

- 68.1 The MUDFA Contractor shall produce to **tie** any documents or provide any information relevant to the performance of the MUDFA Works or any part thereof as **tie** or **tie's** auditors may require and shall provide any documents or information reasonably required by **tie** or **tie's** auditors in respect of any MUDFA Contractor Parties.
- 68.2 Proper books, vouchers, accounts and records relating to the MUDFA Works and any works or services being performed by any MUDFA Contractor Parties shall be maintained by the MUDFA Contractor at its place of business and shall be available for inspection by **tie** or any officer authorised by **tie** at all reasonable times during the duration of the Agreement and for six years after the termination or expiry of this Agreement.

69. CONFLICTS OF INTEREST

- 69.1 The MUDFA Contractor shall:
- 69.1.1 be responsible for ensuring that no Conflict of Interest arises in respect of its duties under the Agreement;
- 69.1.2 make all possible enquiries to ensure that there is no Conflict of Interest prior to its assuming the duties required of it under the terms of the Agreement; and
- 69.1.3 consult and advise **tie** if the MUDFA Contractor considers that a Conflict of Interest exists or if he considers that a conflict of interest may exist or may arise or may be foreseeable and shall furnish **tie** with such information as shall enable **tie** to determine whether or not a Conflict of Interest has arisen.

70. ASSIGNATION

- 70.1 Without prejudice to Clause 12 (*Sub-Contracting*), the MUDFA Contractor shall not assign, novate or otherwise transfer the whole or any part of the Agreement without the prior written agreement of **tie**.

70.2 **tie** shall be entitled to assign, novate or transfer the whole or any part of this Agreement:

70.2.1 to the Scottish Ministers, TEL, CEC or any local authority; or

70.2.2 to any body with no worse financial standing than that of **tie** who takes over all or substantially all the functions of **tie**; or

70.2.3 to any other person whose obligations under this Agreement are unconditionally and irrevocably guaranteed (in a form acceptable to the MUDFA Contractor acting reasonably) by **tie** or a person falling within Clause 70.2.1; or

70.2.4 with the prior written consent of the MUDFA Contractor (such consent not to be unreasonably withheld or delayed) to any person not covered by Clause 70.2.1, 70.2.2 or 70.2.3 whose ongoing financial standing is no worse than that of **tie**.

70.3 If the legal status of the MUDFA Contractor shall change in any way, **tie** shall be informed immediately by the MUDFA Contractor in writing.

70.4 If there is a Change in Control in relation to the MUDFA Contractor, **tie** shall be informed immediately by the MUDFA Contractor in writing.

71. COPYRIGHT AND INTELLECTUAL PROPERTY

71.1 The copyright of this Agreement and any other documents or data supplied by **tie** or **tie's** Representative to the MUDFA Contractor shall not pass to the MUDFA Contractor but the MUDFA Contractor may obtain or make at its own expense any further copies required by it for the purposes of the Agreement.

71.2 All MUDFA Contractor IPR shall continue to be owned by the MUDFA Contractor.

71.3 The MUDFA Contractor hereby:

71.3.1 assigns by way of future assignment to **tie** with full title guarantee the Project IPR which is created by it and shall procure that Project IPR created by any MUDFA Contractor Party is also so assigned, for all of the residue of the term of such rights and all renewals or extensions thereof and together with all accrued causes of action in respect thereof;

- 71.3.2 grants to **tie** a non-exclusive perpetual irrevocable royalty free licence to use such MUDFA Contractor IPR as may be necessary for **tie** to use in relation to any projects associated with the MUDFA Works;
- 71.3.3 grants to **tie** the right to grant non-exclusive non-assignable sub-licences to third parties for such lengths of time as **tie** may reasonably require and otherwise on the same terms as the licence granted to **tie** pursuant to Clause 71.3.2 above, to use the MUDFA Contractor IPR referred to in that Clause (other than in relation to Third Party Software which is subject to the provisions of Clause 71.9) insofar as is necessary or desirable for such third party to use such MUDFA Contractor IPR in relation to any projects associated with the MUDFA Works.
- 71.4 **tie** hereby grants to the MUDFA Contractor a non-exclusive revocable royalty free licence for the duration of this Agreement to use such Project IPR as is owned by **tie** as may be necessary for the MUDFA Contractor to use solely and exclusively for the purpose of performing the MUDFA Works.
- 71.5 The MUDFA Contractor shall at any time and from time to time hereafter at the request of **tie** execute all such documents and do all such further acts as may be required in order to vest the rights referred to in this Clause 71 (*Copyright and Intellectual Property*) in **tie**.
- 71.6 The MUDFA Contractor waives any and all moral rights held or to be held by the MUDFA Contractor in the Project IPR and shall procure that all of the MUDFA Contractor Parties who are authors of the whole or any part of the Project IPR waive and abandon in writing all moral rights.
- 71.7 The MUDFA Contractor agrees that all rights in the Project IPR shall remain the property of **tie** and the MUDFA Contractor shall retain no rights in the Project IPR beyond the licence granted in Clause 71.4 above. The MUDFA Contractor shall be entitled to use such Project IPR only on the terms set out herein and solely for the purpose of the performance of the MUDFA Works. In particular, otherwise as permitted in this Agreement herein, the MUDFA Contractor shall not disclose, assign, sub-licence, lease, rent or otherwise dispose of the Project IPR.
- 71.8 To the extent that any of the Deliverables are generated by or maintained on a computer or similar system, the MUDFA Contractor shall use all reasonable endeavours to procure for the benefit of **tie**, at no charge or at the lowest reasonable

fee, the grant of a licence or sub-licence for any relevant Third Party Software on the same terms as the MUDFA Contractor Software is licensed to the MUDFA Contractor, to enable **tie** or its nominee to access and otherwise use (subject to the payment by **tie** of the relevant fee, if any) such Deliverables in connection with this Agreement. As an alternative, the MUDFA Contractor may provide such Deliverables in a format which may be read by software generally available at reasonable prices in the market at the relevant time or in hard copy format.

71.9 The MUDFA Contractor shall ensure the back-up and storage in safe custody of the Deliverables in accordance with Good Industry Practice. Without prejudice to this obligation, the MUDFA Contractor shall submit to **tie's** Representative for approval its proposals for the back-up and storage in safe custody of the Deliverables and **tie's** Representative shall be entitled to object if the same is not in accordance with Good Industry Practice. The MUDFA Contractor shall comply, and shall cause all the MUDFA Contractor Parties to comply, with all such proposals to which **tie's** Representative has given his or her approval. The MUDFA Contractor may vary its procedures for such back-up and storage subject to submitting its proposals for change to **tie's** Representative, who shall be entitled to object on the basis set out above.

71.10 For the purposes of this Clause 71 (*Copyright and Intellectual Property*), "use" shall include the acts of copying, modifying, adapting and translating the material in question and/or incorporating them with other materials and the term "the right to use" shall be construed accordingly.

71.11 The provisions of this Clause 71 (*Copyright and Intellectual Property*) shall apply during the continuance of this Agreement and after its termination howsoever arising.

71.12 The MUDFA Contractor shall not reproduce or publish any document or matter relating to the MUDFA Works or this Agreement, either alone or in association with any other body or person, without the prior written consent of **tie**.

72. CONFIDENTIALITY

72.1 Where it is considered necessary in the opinion of **tie**, the MUDFA Contractor shall procure that its Key Personnel sign a confidentiality undertaking before commencing any work in connection with this Agreement and shall use its reasonable endeavours to procure that its staff or professional advisors or Sub-Contractors sign a

confidentiality undertaking before commencing any work in connection with this Agreement.

- 72.2 The MUDFA Contractor shall not use any Confidential Information it receives from **tie** otherwise than for the purposes of this Agreement.
- 72.3 The MUDFA Contractor acknowledges that **tie** is subject to the requirements of FOISA and the Environmental Information Regulations and shall assist and cooperate with **tie** to enable **tie** to comply with any Information disclosure requirements. **tie** shall pay the reasonable and demonstrable costs of the MUDFA Contractor providing such assistance and co-operation. **tie** agrees that it shall comply with the terms of the Code in respect of the discharge of its obligations under FOISA.
- 72.4 The MUDFA Contractor shall and shall use reasonable endeavours to procure that the MUDFA Contractor Parties shall:
- 72.4.1 transfer any Request for Information to **tie** as soon as practicable after receipt and in any event within 2 Business Days of receiving a Request for Information;
- 72.4.2 provide **tie** with a copy of all Information in its possession or power in the form that **tie** requires within 5 Business Days (or such other period as **tie** may specify) of **tie** requesting that Information; and
- 72.4.3 provide all necessary assistance as reasonably requested by **tie** to enable **tie** to respond to a Request for Information within the time for compliance set out in section 10 of FOISA or regulation 5 of the Environmental Information Regulations.
- 72.5 **tie** shall be responsible for determining at its absolute discretion whether the Confidential Information and/or any other Information:
- 72.5.1 is exempt from disclosure in accordance with the provisions of the Code, FOISA or the Environmental Information Regulations; and
- 72.5.2 is to be disclosed in response to a Request for Information.
- 72.6 In no event shall the MUDFA Contractor respond directly to a Request for Information unless expressly authorised to do so by **tie**.

72.7 The MUDFA Contractor acknowledges that **tie** may be obliged, pursuant to the Code, FOISA, or the Environmental Information Regulations to disclose Information:

72.7.1 without consulting with the MUDFA Contractor, or

72.7.2 following consultation with the MUDFA Contractor and having taken its views into account.

72.8 The MUDFA Contractor shall ensure that all information and deliverables produced in the course of this Agreement or relating to this Agreement are retained for disclosure and shall permit **tie** to inspect such records as requested from time to time.

72.9 Any public relations material, press releases, public presentations or conference engagements in relation to the MUDFA Works planned by the MUDFA Contractor shall require **tie's** prior written approval.

73. WAIVER

73.1 Save where expressly stated, no failure or delay by either Party to exercise any right or remedy in connection with this Agreement will operate as a waiver of it or of any other right or remedy nor will any single or partial exercise preclude any further exercise of the same, or of some other right or remedy. A waiver of any breach of this Agreement shall not be deemed to be a waiver of any subsequent breach.

73.2 The MUDFA Contractor agrees that no waiver shall occur or be deemed to have occurred unless or until a clear and unequivocal express waiver of a clearly identified default is contained in a written notice by **tie** to the MUDFA Contractor expressly for the purpose of effecting such waiver.

73.3 The Parties' rights and remedies under this Agreement are, except where provided otherwise in this Agreement, independent, cumulative and do not operate to exclude one another or any rights or remedies provided by law.

74. NOTICES

74.1 Any notice or notification required or authorised to be given under this Agreement by one Party to the other shall be:

74.1.1 in writing;

74.1.2 sent by one of the following methods:

74.1.2.1 pre-paid special or recorded delivery post or facsimile transmission addressed to the Party to which it is given at:

- (a) in the case of notices given to **tie**, Verity House, 19 Haymarket Yards, Edinburgh EH12 5BH, fax number 0131 622 8301, attention: Projects Director, or such other address or fax number in the United Kingdom as **tie** may notify the MUDFA Contractor from time to time for that purpose; or
- (b) in the case of notices given to the MUDFA Contractor, The Malthouse, Elevator Road, Trafford Park, Manchester M17 1BR, Fax Number: 0161 8556186 or such other address or fax number in the United Kingdom as the MUDFA Contractor may notify **tie** from time to time for that purpose; or
- (c) in the case of notices given to **tie's** Representative, Verity House, 19 Haymarket Yards, Edinburgh EH12 5BH, fax number 0131 622 8301 or such other address or fax number in the United Kingdom as **tie's** Representative may notify the MUDFA Contractor from time to time for that purpose; or
- (d) in the case of notices given to MUDFA Contractor's Representative, The Malthouse, Elevator Road, Trafford Park, Manchester M17 1BR, Fax Number: 0161 8556186 or such other address or fax number in the United Kingdom as MUDFA Contractor's Representative may notify **tie** from time to time for that purpose; or

74.1.2.2 personal delivery into the hands of:

- (a) in the case of notices given to **tie**, **tie's** Representative; or
- (b) in the case of notices given to the MUDFA Contractor, the MUDFA Contractor's Representative;

74.1.2.3 e-mail to:

- (a) in the case of notices given to **tie**, the **tie's** Representative; or

- (b) in the case of notices given to the MUDFA Contractor, the MUDFA Contractor's Representative;

74.1.3 be deemed duly served:

74.1.3.1 if sent by special delivery or recorded delivery post, on proof of delivery; or

74.1.3.2 if sent via facsimile transmission or personal delivery, on the day of issue of the relevant fax confirmation receipt or such personal delivery (as appropriate), unless that day is not a Business Day in which case it shall be deemed duly served on the next Business Day thereafter; or

74.1.3.3 if sent via e-mail, the date of written acknowledgement by the Party to whom the notice was served.

75. ENTIRE AGREEMENT

75.1 Except where expressly provided otherwise in this Agreement, this Agreement constitutes the entire agreement between the Parties in connection with its subject matter and supersedes all prior representations, communications, negotiations and understandings concerning the subject matter of this Agreement.

75.2 Each of the Parties confirms to the other that it has neither been induced to enter into this Agreement in reliance on, nor has it made, any representation or warranty except those contained or referred to in this Agreement.

75.3 Any representations or warranties other than those contained or referred to in this Agreement are superseded and extinguished by this Agreement.

75.4 Each Party irrevocably and unconditionally waives all rights and remedies which it might otherwise have had in relation to any representations or warranties other than those contained or referred to in this Agreement.

76. DATA PROTECTION

76.1 For the purpose of the following Clauses, the term "personal data" shall have the meaning given to it in the Data Protection Act 1998.

76.2 The MUDFA Contractor shall, in relation to any personal data in respect of which it is either the "data controller" or the "data processor" for the purposes of the Data Protection Act 1998, comply with the obligations of a "data controller" under the provisions of the seventh data protection principle as set out in Schedule 1 of that Act. In addition, the MUDFA Contractor:

76.2.1 shall have at all material times (and shall use reasonable endeavours to procure that all MUDFA Contractor Parties have or will have at all material times) the appropriate technical and organisational measures in place against unauthorised or unlawful processing of personal data and against accidental loss or destruction of, or damage to, personal data held or processed by it;

76.2.2 shall (and shall use reasonable endeavours to procure that the MUDFA Contractor Parties shall) take at all material times, all reasonable steps to ensure the integrity of any of its staff with access to personal data processed in connection with the Edinburgh Tram Network;

76.2.3 shall act only on the instructions of **tie** in relation to the processing of any personal data in respect of which **tie** is the "data controller" for the purposes of that Act;

76.2.4 shall only obtain, hold, process, use, store and disclose such personal data as is necessary to perform its obligations under this Agreement; and

76.2.5 shall allow **tie** access to any relevant premises on reasonable notice to inspect its procedures referred to in Clause 76.2.1.

77. DISCRIMINATION

77.1 The MUDFA Contractor shall not (and the MUDFA Contractor shall insert a Clause to this effect in each contract with any Sub-Contractor) unlawfully discriminate within the meaning and scope of the provisions of the Equal Pay Act 1970, the Sex Discrimination Act 1975, the Race Relations Act 1976, the Disability Discrimination Act 1995, the Employment Equality (Sexual Orientation) Regulations 2003 and the Employment Equality (Religion or Belief) Regulations 2003.

78. CONSENT AND APPROVAL

78.1 The giving of any consent or approval by or on behalf of **tie** shall not in any way relieve the MUDFA Contractor of any of its obligations under the Agreement or of its

duty to ensure the correctness, accuracy or suitability of the matter or thing which is the subject of the consent or approval.

78.2 Failure by **tie** to disapprove or object to any matter or thing shall not prejudice its power subsequently to take action under the Agreement in connection therewith.

79. FURTHER ASSURANCE

79.1 Each Party shall at the reasonable request and cost of the other (save where it is expressly provided that the cost of such act or execution shall be for that party's account) do any act or execute any document that may be necessary to give full effect to this Agreement.

80. VARIATIONS TO BE IN WRITING

80.1 No variation, or alteration of any of the provisions of this Agreement shall be effective unless it is in writing and signed by both Parties.

81. NO PARTNERSHIP OR AGENCY

81.1 Nothing in this Agreement shall be construed as creating a partnership between **tie** and the MUDFA Contractor.

81.2 The MUDFA Contractor shall not (and shall procure that the MUDFA Contractor Parties shall not) act or purport to act as agent for **tie** in relation to any matter unless specifically authorised in writing under this Agreement by **tie**. The MUDFA Contractor shall not be entitled to bind **tie** in any way or to create any liability or cause of action against **tie** and shall not hold itself out (and shall procure that no MUDFA Contractor Party shall hold itself out) as having any such authority or power.

82. INVALID TERMS

82.1 If any term of this Agreement shall be held to any extent to be invalid, unlawful or unenforceable:

82.1.1 that term shall to that extent be deemed not to form part of this Agreement;
and

82.1.2 the validity and enforceability of the remainder of this Agreement shall not be affected.

83. THIRD PARTY RIGHTS

83.1 Subject to any other express provision of this Agreement, a person who is not party to this Agreement shall have no right to enforce any term of this Agreement.

84. LIMITATION

84.1 Notwithstanding anything to the contrary contained in this Agreement and/or the Performance Bond and/or the Retention Bond, the liability of the MUDFA Contractor under or in connection with this Agreement whether in contract or delict, in negligence for breach of statutory duty or otherwise (other than in respect of personal injury or death) shall be limited to the greater of £3,500,000 (THREE MILLION FIVE HUNDRED THOUSAND POUNDS STERLING) or 7% of the Final Account. provided always that the calculation of the quantum of such limitation :

84.1.1 shall exclude the proceeds of the Performance Bond or the Retention Bond; and

84.1.2 does not relate to liabilities which are or should have been covered by the proceeds of the Required Insurances, the OCIP Insurances, and/or any Additional Insurances; and

84.1.3 does not relate to liabilities which would have been covered by the proceeds of the Required Insurances, the OCIP Insurances and/or any Additional Insurances but for the application of any deductible under such insurances

84.2 No action or proceedings under or in respect of this Agreement whether in contract or delict or in negligence or for breach of statutory duty or otherwise shall be commenced against the MUDFA Contractor after expiry of a period of 12 years from the date of the last Certificate of Substantial Completion of the MUDFA Works, save to the extent that proceedings have been commenced against the MUDFA Contractor during the said 12 year period.

IN WITNESS WHEREOF these presents on this and the preceding 138 pages together with Schedules One to Seventeen (inclusive) which are annexed and signed as relative hereto are executed as follows:

EXECUTED for and on behalf of **TIE LIMITED**
at Edinburgh
on 4 October 2006 by:

Authorised Signatory

Full Name

Witness Signature

Full Name

Address



WILLIAM GALLAGHER



ALASDAIR SLESOR

c/o tie Limited, Venty House,
Haymarket Yards, Edinburgh

EXECUTED for and on behalf of **ALFRED McALPINE INFRASTRUCTURE SERVICES LIMITED** at Edinburgh
on 4 October 2006 by:

Director/Authorised Signatory

Full Name

Witness Signature

Full Name

Address



STEVE HUDSON



ALASDAIR WOOD

c/o DLA Piper, Rutland Square,
Edinburgh

**THIS IS SCHEDULE 1 REFERRED TO IN THE FOREGOING AGREEMENT BETWEEN
TIE AND THE MUDFA CONTRACTOR**

SCHEDULE 1

SCOPE OF WORKS AND SERVICES

1. GENERAL

1.1 Unless otherwise expressly agreed with **tie** in accordance with this Agreement, the MUDFA Contractor shall:

1.1.1 perform and complete all Pre-Construction Services during the Pre-Construction Phase;

1.1.2 perform and complete all Construction Services during the Construction Phase;

1.1.3 carry out and complete all Construction Works during the Construction Phase;

1.1.4 perform all Risk Services throughout the Pre-Construction Phase and the Construction Phase, as appropriate;

1.1.5 perform all Stakeholder Services throughout the duration of this Agreement, as appropriate; and

1.1.6 provide all accommodation and vehicles in accordance with Part 7 of this Schedule 1 (*Scope of Works and Services*).

2. PRE-CONSTRUCTION SERVICES

General

2.1 In the absence of a specified date for completion of any Pre-Construction Deliverable, any such Pre-Construction Deliverable shall be submitted to **tie** for approval by **tie** in accordance with the Review Procedure. The MUDFA Contractor shall ensure that the Pre-Construction Deliverables are finalised, in accordance with the Review Procedure, no later than two weeks before the end of the Pre-Construction Phase.

Work Breakdown Structure

- 2.2 The MUDFA Contractor shall develop the Work Breakdown Structure (WBS) into a comprehensive and detailed document suitable for executing and managing the dates required for the release of design information, mobilisation, construction works, testing and commissioning and completion in respect of the MUDFA Works. The WBS shall be completed by the MUDFA Contractor and finalised in accordance with the Review Procedure within eight weeks of the Effective Date. The WBS shall be segregated into management activities, mobilisation activities, Work Sectors, Work Sections, Work Sites within Work Sections, type of construction, type of installation and Utilities Works. The objective of the WBS is to assist in the monitoring of progress of the MUDFA Works, to enable the release of design information, and to ensure that the Pre-Construction Services, Pre-Construction Deliverables, Construction Services and Construction Works are fully integrated with the construction and commissioning activities.

Pre-Construction Programme

- 2.3 The MUDFA Contractor shall develop the Pre-Construction Programme into a detailed and comprehensive programme, for approval by tie in accordance with the Review Procedure. The MUDFA Contractor shall ensure that the Pre-Construction Programme is finalised within seven weeks of the Effective Date. The Pre-Construction Programme shall be developed by the MUDFA Contractor to ensure that:
- 2.3.1 the Pre-Construction Deliverables are defined and identified;
 - 2.3.2 the Review Procedure is identified for each Deliverable;
 - 2.3.3 the Pre-Construction Programme shall show, and shall assist in controlling progress in completing the Pre-Construction Deliverables;
 - 2.3.4 any relevant constraints, procedures, documentation and approvals specified in Schedule 2 (*Technical Requirements*) required during the Pre-Construction Phase are defined and identified;
 - 2.3.5 any design approvals and notices required from the Utilities during the Pre-Construction Phase are defined and identified;

- 2.3.6 any works to be undertaken by any Sub-Contractor during the Pre-Construction Phase are defined and identified;
 - 2.3.7 any long lead time works which require to be initiated during the Pre-Construction Phase are identified and defined;
 - 2.3.8 the requirements and approval dates for traffic management and TTROs, including any third party's requirements for notices and road closures, are clearly identified and defined;
 - 2.3.9 links and relationships between all activities and events are clearly demonstrated and justification of the logic that underpins them is detailed;
 - 2.3.10 the SDS Provider's scheme design, detailed designs and construction production information are identified and defined in terms of content and timing; and
 - 2.3.11 inputs and approvals required from **tie**, the Utilities, and any Approval Bodies are clearly identified.
- 2.4 The MUDFA Contractor shall develop the Pre-Construction Programme to meet the following minimum requirements:
- 2.4.1 the Pre-Construction Programme shall be in Primavera P3e for detailed implementation;
 - 2.4.2 the Pre-Construction Programme shall follow the WBS;
 - 2.4.3 the Pre-Construction Programme shall be cost and resource (named) loaded down to a level to be agreed by both Parties acting reasonably;
 - 2.4.4 all resource reporting shall be to a level to be agreed by both Parties acting reasonably;
 - 2.4.5 records of time spent against activities, as generated by Primavera P3e, any deviations and notification of remedial actions to be authorised by **tie** shall be reported on a weekly basis to **tie** in a format to be agreed by both Parties acting reasonably;
 - 2.4.6 weekly records shall be collated by 09:00hrs on the Tuesday following the week to which the records relate;

- 2.4.7 the Pre-Construction Programme shall be continuously updated and submitted at 2 weekly intervals; and
- 2.4.8 the Pre-Construction Programme shall also take into account programming input and attendance at meetings, both as required by **tie**.
- 2.5 The MUDFA Contractor shall take into account the availability of alternative materials or components when developing the Pre-Construction Programme. The MUDFA Contractor shall identify, in consultation with the Utilities, those materials and components which require advance ordering and processing. Any advanced orders which are approved shall be identified and defined in the Pre-Construction Programme.
- 2.6 The MUDFA Contractor shall update the Pre-Construction Programme every two weeks to show its progress in completing the Pre-Construction Deliverables. The updated Pre-Construction Programme and a progress report shall be submitted by the MUDFA Contractor to **tie** no later than 3 Business Days before each two weekly progress meeting. Each progress report shall include:
- 2.6.1 4 week forecast of activities;
 - 2.6.2 8 week critical impact notice (any internal or external factor which may affect programme delivery);
 - 2.6.3 the activities begun and completed since the previous report and upon what dates;
 - 2.6.4 the expected remaining duration of all activities begun but not completed;
 - 2.6.5 any changes or additional activities with expected durations, methods, and resource requirements and sequence assumptions;
 - 2.6.6 programme comparison between actual vs planned;
 - 2.6.7 outstanding information schedule;
 - 2.6.8 updates to the Change Control Register;
 - 2.6.9 schedule of instructions; and
 - 2.6.10 cost report.

Construction Programme

- 2.7 The MUDFA Contractor shall develop the Construction Programme into a detailed and comprehensive programme, for approval by **tie** and TEL in accordance with the Review Procedure. The MUDFA Contractor shall ensure that the Construction Programme is finalised four weeks before the end of the Pre-Construction Phase. The Construction Programme shall be developed by the MUDFA Contractor to ensure that:
- 2.7.1 the commencement and completion constraints for each Work Site, Work Section and Work Sector are accounted for;
 - 2.7.2 the constraints, procedures, documentation and approvals specified in Schedule 2 (*Technical Requirements*) are defined and identified;
 - 2.7.3 the construction execution strategy for the MUDFA Works has been carefully developed and embedded within the Construction Programme;
 - 2.7.4 seasonal constraints which affect working procedures are accounted for;
 - 2.7.5 the design approvals and notices required from the Utilities are identified;
 - 2.7.6 all works to be undertaken by any Sub-Contractor are defined and identified;
 - 2.7.7 all Utilities Works, including attendance, witnessing, inspections, testing and commissioning, are defined and identified;
 - 2.7.8 sufficient detail is provided to demonstrate integration of the Pre-Construction Phase activities with the proposed dates of possession and completion of construction for each Work Sector;
 - 2.7.9 other projects in the affected areas are fully integrated into the MUDFA Works. For example, any street works to be carried out by CEC, and works by any third parties (including landowners and developers) but only to the extent that the MUDFA Contractor has been notified in writing of such works;
 - 2.7.10 long lead time works are identified and defined;
 - 2.7.11 the extent of any Advance Works which may be required is identified and defined;

- 2.7.12 the extent of any Enabling Works which may be required is identified and defined;
 - 2.7.13 the requirements and approval dates for traffic management and TTROs, including any third party's requirements for notices and road closures, are clearly identified and defined;
 - 2.7.14 the programme minimises disruption to bus services and is agreed with TEL, including ensuring that any necessary diversion routes for bus services are also agreed with TEL;
 - 2.7.15 the commencement, completion dates and relationships of proposed stages/Work Sites within each Work Section are clearly identified and defined;
 - 2.7.16 links and relationships between all activities and events are clearly demonstrated and justification of the logic that underpins them is detailed;
 - 2.7.17 the SDS Provider's scheme design, detailed designs and construction production information are identified and defined in terms of content and timing;
 - 2.7.18 inputs and approvals required from **tie**, the Utilities, and any Approval Bodies are clearly identified; and
 - 2.7.19 the interface and relationship with the commencement of the tramway construction works by the Infraco are clearly defined and identified, with the reasonable assistance of **tie**..
- 2.8 The MUDFA Contractor shall develop the Construction Programme to meet the following minimum requirements:
- 2.8.1 the Construction Programme shall be in Primavera P3e for detailed implementation;
 - 2.8.2 the Construction Programme shall follow the WBS;
 - 2.8.3 the Construction Programme shall be cost and resource (named) loaded down to a level to be agreed by both Parties acting reasonably;

- 2.8.4 all resource reporting shall be to a level to be agreed by both Parties acting reasonably;
 - 2.8.5 records of time spent against activities, as generated by Primavera P3e, any deviations and notification of remedial actions to be authorised by **tie** shall be reported on a weekly basis to **tie** in a format to be agreed by both Parties acting reasonably;
 - 2.8.6 weekly records shall be collated by 09:00hrs on the Tuesday following the week to which the records relate;
 - 2.8.7 the Construction Programme shall also take into account programming input and attendance at meetings, both as required by **tie**; and
 - 2.8.8 the Construction Programme shall also contain monthly value tables and cumulative value S curves to match the achievement of major deliverables and activities within the WBS;
- 2.9 The MUDFA Contractor shall take into account the availability of alternative materials or components when developing the Construction Programme. The MUDFA Contractor shall identify, in consultation with the Utilities, those materials and components which require advance ordering and processing. Any advanced orders which are approved shall be identified and defined in the Pre-Construction and Construction Programme (as appropriate).

Interaction with the SDS Provider

- 2.10 The SDS Provider and the MUDFA Contractor shall work together, pro-actively, to achieve economically efficient design and buildability with regard to the MUDFA Works.
- 2.11 The MUDFA Contractor shall review the design work carried out by the SDS Provider, and the MUDFA Contractor shall produce an Initial Buildability Report which shall be finalised by the MUDFA Contractor in accordance with the Review Procedure within eight weeks of the Effective Date or such other date as the Parties agree. The Initial Buildability Report shall include proposals from the MUDFA Contractor in relation to buildability, Temporary Works, access to premises or properties and phasing of all Work Sectors and Work Sections and the staging of Work Sites within the Work Sections. The MUDFA Contractor shall propose cost and time-saving initiatives where possible and explore mitigation measures which are

reasonably predicted to be required to protect the interests any of third parties affected by the MUDFA Works.

- 2.12 The MUDFA Contractor shall liaise with **tie**, the SDS Provider, the Utilities and other affected third parties throughout the Pre-Construction Phase, to optimise progress and ensure that all issues relevant to the MUDFA Works are addressed timeously. This liaison shall include working together to achieve the objectives expressed in Clause 48 (*Value Engineering Incentive*).
- 2.13 The MUDFA Contractor shall support the SDS Provider in relation to the resolution of the policies and agreements for traffic management and the submission of the TTROs which will be required in respect of the MUDFA Works. The SDS Provider shall consult with and submit the TTRO requirements and schedules, to CEC in its capacity as roads authority. The MUDFA Contractor shall support this process by preparing phasing plans, Work Site plans, Temporary Works method statements, access routes for emergency vehicles, assumptions registers, issues logs and any other means to ensure prompt resolution of issues which could affect the progress and economic execution of the MUDFA Works. This responsibility shall also include attendance by the MUDFA Contractor (as required by **tie**) at meetings in relation to the TTRO requirements and the MUDFA Contractor being involved (as required by **tie**) in any representations to the Council-led RAUC Committee, which convenes quarterly.
- 2.14 The MUDFA Contractor shall produce a method statement entitled "Procedures for dealing with Unidentified Apparatus or Unrecorded Artificial Obstructions", which shall be finalised by the MUDFA Contractor in accordance with the Review Procedure within eight weeks of the Effective Date. This method statement shall contain procedures which shall confirm the processes for dealing with unforeseeable events or circumstances, the discovery of unidentified apparatus or unrecorded artificial obstructions. The MUDFA Contractor shall consult with the SDS Provider prior to issue of the method statement. The final version of the method statement and procedures shall be agreed with the relevant key third parties, Approval Bodies, the Utilities and the emergency services. The method statement shall be updated and a final version produced which shall be finalised by the MUDFA Contractor in accordance with the Review Procedure no later than four weeks before the end of the Pre-Construction Phase.

- 2.15 The MUDFA Contractor shall keep the Pre-Construction Programme and Construction Programme under continuous review as the SDS Provider's designs evolve, so as to ensure that the SDS Provider's design release dates meet the MUDFA Contractor's requirements for mobilisation and construction. The MUDFA Contractor shall propose mitigation measures if the SDS Provider's design release dates are not met. Mitigation measures shall include alternative execution strategies and proposals to re-deploy staff or operatives to minimise or avoid any cost implications.
- 2.16 The MUDFA Contractor shall similarly keep the scope of the MUDFA Works, in particular the Construction Works, and the estimated costs under review (in conjunction with the SDS Provider and **tie**), with regard to potential savings that may be identified before the design being carried out by the SDS Provider is completed.
- 2.17 The MUDFA Contractor shall manage any specialist contractor design elements carried out by any Utilities Specialist Contractor or by another third party which are required to progress the MUDFA Works (e.g. proprietary sewer rehabilitation design), and shall co-ordinate the same within the overall design process. The SDS Provider shall review the specialist contractor design elements and ensure that there are no conflicts with the SDS Provider's designs.
- 2.18 The MUDFA Contractor shall support and provide input into the development of the template for the "Waste Management Plan", which shall be prepared by the SDS Provider. The MUDFA Contractor shall further develop the plan in accordance with Schedule 2 (*Technical Requirements*) paragraph 20.1.1.
- 2.19 The MUDFA Contractor shall support and provide input into the development of the template for the "Construction Site Drainage Plan", which shall be prepared by the SDS Provider. The MUDFA Contractor shall further develop the plan in accordance with Schedule 2 (*Technical Requirements*) paragraph 21.1.1.
- 2.20 The MUDFA Contractor shall support and provide input into the development of the template for the "Landscape and Habitat Management Plan", which shall be prepared by the SDS Provider. The MUDFA Contractor shall further develop the plan in accordance with Schedule 2 (*Technical Requirements*) paragraph 22.1.1.3.
- 2.21 The MUDFA Contractor shall support and provide input into the development of the template for the "Archaeological and Heritage Mitigation Plan", which shall be

prepared by the SDS Provider. The MUDFA Contractor shall further develop the plan in accordance with Schedule 2 (*Technical Requirements*) paragraph 23.1.1.

- 2.22 The MUDFA Contractor shall support and provide input into the "Mitigation Measures for Working around Protected Species", and shall work with the SDS Provider and other relevant parties to agree mitigation measures as required by Schedule 2 (*Technical Requirements*) paragraph 22.2.
- 2.23 The MUDFA Contractor shall support and provide input to the strategy for controlling "Invasive and Alien Species", which shall be prepared by the SDS Provider and the MUDFA Contractor shall demonstrate how the requirements set out in Schedule 2 (*Technical Requirements*) shall be complied with.
- 2.24 The MUDFA Contractor shall support and provide input to the "Condition and Defects Survey", which shall be prepared by the SDS Provider.

Management Systems

- 2.25 No later than four weeks before the end of the Pre-Construction Phase, the MUDFA Contractor shall confirm that the following management systems have been implemented by the MUDFA Contractor in accordance with Schedule 2 (*Technical Requirements*):
 - 2.25.1 Quality Management System;
 - 2.25.2 Safety Management System; and
 - 2.25.3 Environmental Management System.

Traffic Management and TTROs

- 2.26 The MUDFA Contractor shall provide all necessary support to **tie** and SDS Provider to ensure that TTROs are obtained. The services and support which shall be provided by the MUDFA Contractor shall include the following:
 - 2.26.1 the MUDFA Contractor shall work with the SDS Provider, **tie** and TEL to further refine the definition and staging of the MUDFA Works and the MUDFA Contractor shall produce a "Traffic Management and Work Site Staging Plan" which shall be submitted by the MUDFA Contractor in accordance with the Review Procedure within eight weeks of the Effective Date. This plan shall be updated by the MUDFA Contractor every two weeks

for review at design meetings and every four weeks at stakeholder and third party meetings. A final version of the Traffic Management and Work Site Staging Plan shall be finalised by the MUDFA Contractor for approval by **tie** and TEL in accordance with the Review Procedure no later than two weeks before the end of the Pre-Construction Phase. The Traffic Management and Work Site Staging Plan shall comply with the TTRO protocol developed by **tie**, CEC and the SDS Provider and shall include a detailed definition of the Work Sectors, Work Sections and Work Sites within the Work Sections. The Traffic Management and Work Site Staging Plan shall also include all necessary drawings, diagrams and supporting information to show the mobilisation, erection and dismantling of Temporary Works, traffic and pedestrian management during any pre-diversion works and the MUDFA Works, access to properties, details of fencing and security measures.

- 2.26.2 The MUDFA Contractor shall develop a set of requirements in relation to TTROs and traffic management which shall be based on information supplied to the MUDFA Contractor by **tie**, TEL and the SDS Provider ("TTRO Obligations and Traffic Management Plan"). The MUDFA Contractor shall prepare and develop project-specific procedures for complying with the TTRO Obligations and Traffic Management Plan, and these procedures shall be submitted four weeks before the end of the Pre-Construction Phase for approval by **tie** and TEL in accordance with the Review Procedure. The TTRO Obligations and Traffic Management Plan shall be developed by the MUDFA Contractor in compliance with the TTRO protocol developed by **tie**, CEC and the SDS Provider and to take account of the interface on traffic management which will be required in relation to the tramway construction works which are to be undertaken by the Infracore. By appropriate induction, the MUDFA Contractor shall ensure all site-based personnel, management staff, operatives and visitors are fully aware of and understand the procedures contained within this document. The designated project or site manager appointed by the MUDFA Contractor in relation to each Work Section shall be accountable for implementation and compliance with these requirements and procedures. The MUDFA Contractor shall ensure that the overriding considerations expressed in these procedures and requirements shall be the safety of road users, minimising disruption caused by the MUDFA Works, pedestrian management and ensuring that traffic and pedestrian disruption is

kept to a minimum. This shall include taking such measures as CEC, in its capacity as roads authority, may reasonably require.

2.26.3 The MUDFA Contractor shall ensure that reasonable access to premises is maintained at all times. The proposals and procedures in relation to maintaining such access shall be contained within the TTRO Obligations and Traffic Management Procedures Plan.

Construction Advice

- 2.27 Following the preparation of the Initial Buildability Report, the MUDFA Contractor shall continue to provide advice to the SDS Provider and such advice shall include the practical implications relative to the buildability of the design. The MUDFA Contractor shall also carry out a detailed review of the proposed drawings and specifications. In particular, the MUDFA Contractor shall confirm how the extent of necessary works can be minimised, diversions avoided, works re-planned, unidentified apparatus dealt with and abandoned apparatus treated.
- 2.28 The MUDFA Contractor may propose suitable alternative materials and components for use in relation to the MUDFA Works, subject to the approval of the SDS Provider and the relevant Utilities and **tie** in accordance with paragraphs 2.5 and 2.9.
- 2.29 The MUDFA Contractor shall propose and agree with **tie** the construction methods which shall be utilised in respect of the MUDFA Works. The MUDFA Contractor shall also advise **tie** on the time and cost implications of alternative solutions, and shall initiate the requirements for Temporary Works, and the programme for approvals for such Temporary Works and their execution. The proposals shall be presented and defined by the MUDFA Contractor in the Final Buildability Report.
- 2.30 The MUDFA Contractor shall advise **tie** on the provision and layout of the main site office and local Work Sector /Work Section facilities and services to be provided or secured by the MUDFA Contractor. **tie's** requirements for office accommodation at the main site office are expressed in Part 7 of this Schedule 1 (*Scope of Works and Services*). The proposals for facilities and services shall be presented and defined by the MUDFA Contractor in the Final Buildability Report.
- 2.31 The MUDFA Contractor shall advise **tie** on the potential impact of the MUDFA Works upon neighbouring occupiers and users of nearby highways, and the MUDFA

Contractor shall plan the execution of the MUDFA Works in such a way as to minimise disruption and prevent nuisance.

- 2.32 No later than six weeks before the end of the Pre-Construction Phase, the MUDFA Contractor shall prepare a plan which shall show the MUDFA Contractor's proposals for temporary works, security and fencing arrangements ("Temporary Works, Security and Fencing Arrangements Plan"). The MUDFA Contractor shall produce suitable registers, schedules and drawings no later than four weeks before the end of the Pre-Construction Phase to show how the Temporary Works, Security, and Fencing Arrangements Plan will work in practice.
- 2.33 No later than four weeks before the end of the Pre-Construction Phase, the MUDFA Contractor shall provide a Final Buildability Report for approval in accordance with the Review Procedure, which shall address all of the requirements identified in paragraphs 2.27 to 2.32.

Pricing and Cost Control

- 2.34 During the Pre-Construction Phase, the MUDFA Contractor shall review the developed designs prepared by the SDS Provider, and following such review, the MUDFA Contractor shall update the Tender Total and produce a draft Anticipated Final Account no later than eight weeks after the Effective Date. This draft Anticipated Final Account shall be updated every two weeks by the MUDFA Contractor and issued by the MUDFA Contractor to **tie** no later than two Business Days before each cost review meeting. The final version of the Anticipated Final Account shall be issued by the MUDFA Contractor to **tie**, no later than ten Business Days before the end of the Pre-Construction Phase.
- 2.35 The Anticipated Final Account shall comply with the approved WBS and the structure of the Construction Programme.
- 2.36 The MUDFA Contractor shall ensure that the Anticipated Final Account is compiled using appropriate rates and prices from the Bills of Quantities. Where the MUDFA Contractor considers that an item of work varies materially from the work described in the Bills of Quantities, the MUDFA Contractor shall provide details, including estimates of labour, plant and materials from the Bills of Quantities for the proposed item of work, for approval by **tie**.

- 2.37 As required by **tie**, the MUDFA Contractor shall carry out a pro-active role in cost benchmarking, risk management and value engineering processes (benchmarking is required to aid in the substantiation of rates and prices for work which varies materially for the work described within the Bills of Quantities). This shall involve the production by the MUDFA Contractor of "Benchmarking, Risk Management and Value Engineering Estimates and Reports". These Reports and advice shall be provided by the MUDFA Contractor from time to time as required.
- 2.38 The MUDFA Contractor shall update and provide all necessary details for the "Construction Stage Cost Reporting System" for **tie**'s approval. The requirements are defined in paragraph 3.2.

Access Permits, Permits to Work and Utility Permits to Work

- 2.39 The MUDFA Contractor shall develop procedures, "Access Control Permit Procedures", which shall demonstrate how the MUDFA Contractor shall comply with the requirements for obtaining Access Permits in accordance with Schedule 2 (*Technical Requirements*).
- 2.40 The MUDFA Contractor shall develop procedures, "Permits to Work Procedures" and "Utility Permits to Work Procedures", which shall demonstrate how the MUDFA Contractor shall comply with the requirements for obtaining Permits to Work in accordance with Schedule 2 (*Technical Requirements*) and Schedule 3 (*Specification*).

Interaction with the Utilities

- 2.41 In so far as reasonably practicable, the MUDFA Contractor shall manage arrangements with the Utilities in respect of the Utilities' involvement in the MUDFA Works (in whatever capacity) and in respect of any Utilities Works. This shall include:
- 2.41.1 the management of any sub-contract arrangements and materials supplies, if required in the context of the MUDFA Contractor appointing Utility Specialist Contractors;
 - 2.41.2 management of the Utilities in carrying out the Utilities Works;
 - 2.41.3 establishing specific requirements and procedures for each Utility including: incident reporting and escalation, Access Permits, Utility Permits to Work,

identification of unidentified Apparatus, handover (both ways), working on the same Work Site at the same time, health & safety issues, compliance with the CDM Regulations (which shall include the MUDFA Contractor retaining its role as the Principal Contractor in respect of the MUDFA Works and the Utilities Works unless expressly instructed to the contrary by **tie**), notifications to customers, inspections and access to the works by the Utilities;

- 2.41.4 agreement of the programme(s) where the Utility is undertaking any Utilities Works and integrating these programmes into the Construction Programme;
- 2.41.5 providing support to **tie** and the SDS Provider to obtain design approvals and agreements with the Utilities;
- 2.41.6 attendance at any "Utility Group meetings"; and
- 2.41.7 integration of communications with the Utilities, including reporting, resolution of queries and provision of any outstanding information etc.

Health and Safety

- 2.42 During the Pre-Construction Phase, the MUDFA Contractor shall develop and update the Pre-Construction Health and Safety Plan as the design of the utilities diversions is finalised, to provide the information relating to the significant hazards (including major emergency incidents and terrorist threats) which the MUDFA Contractor shall be required to address in the Construction Health & Safety Plan which is to be prepared by the MUDFA Contractor.
- 2.43 Paragraph not used.

Method Statements

- 2.44 The MUDFA Contractor shall develop procedures, "Method Statement Procedures", which shall demonstrate how the MUDFA Contractor shall comply with the requirements for the development of method statements in accordance with Schedule 2 (*Technical Requirements*). The development of the "Method Statement Procedures" shall be completed by the MUDFA Contractor and finalised in accordance with the Review Procedure.

Communications, Meetings and Progress Reporting

- 2.45 The MUDFA Contractor shall produce and implement a "Communications Plan" which shall be in accordance with the requirements of paragraph 2.49 and which shall be finalised by the MUDFA Contractor in accordance with the Review Procedure within eight weeks of the Effective Date. The Communications Plan shall ensure that all processes, activities and issues are being managed and satisfactorily resolved. The MUDFA Contractor shall liaise with the relevant parties to ensure that the MUDFA Contractor is copied into all relevant communications in order to ensure that any relevant construction-related issues, such as Temporary Works and practical constraints, are identified and addressed.
- 2.46 During the Pre-Construction Phase, the MUDFA Contractor shall work with **tie** to develop the meetings schedules and requirements for progress reporting during the Construction Phase. The following schedule provides an outline of the minimum requirements:

Meeting	Frequency	Chaired by / Minutes taken
Progress	4 weekly	tie
Design and Planning	Fortnightly	SDS Provider
Utilities Group Meetings	4 weekly	tie
Stakeholder & third party meetings	As required	tie
Site Meetings	Weekly	MUDFA Contractor
Cost Review	Fortnightly	tie

- 2.47 The MUDFA Contractor shall propose a comprehensive meetings schedule indicating those meetings which the MUDFA Contractor shall chair and those meetings which the MUDFA Contractor will attend. All meetings shall be clearly shown in the Construction Programme.
- 2.48 During the Pre-Construction Phase, progress meetings shall be held every two weeks. The purpose of these meetings will be to review progress made by all parties, and identify and agree actions required. The MUDFA Contractor shall provide reports three Business Days before each meeting. The reports will include all of the requirements detailed at paragraph 2.6.

2.49 The Communications Plan shall detail how the MUDFA Contractor will communicate with Sub-Contractors, **tie**, the SDS Provider, the Utilities, key stakeholders and third parties. The Communications Plan shall also include the intended processes for dealing with enquiries, particularly complaints, from all sources. The MUDFA Contractor shall refer to the requirements on the MUDFA Contractor set out in Schedule 2 (*Technical Requirements for Contractors*) and the Stakeholder Services, in order to ensure that the Communications Plan includes all necessary requirements.

Advance Construction Works

2.50 During the Pre-Construction Phase, the MUDFA Contractor may be requested by **tie** to carry out or procure the carrying out of enabling works and demolition works (which could include survey and protection of buildings and other structures, archaeological and site investigations, removal/re-location of street furniture, frontager accommodation works and advance signing) on Site prior to the commencement of the Construction Phase, including the management of any archaeological works and site investigations.

Enabling Works

2.51 During the Pre-Construction Phase, the MUDFA Contractor may be requested by **tie** to carry out or procure cabling or pre-diversion works on Site prior to the commencement of the Construction Phase.

Pre-Construction Deliverables

2.52 The MUDFA Contractor shall submit the following deliverables for approval by **tie** in accordance with the requirements identified in this Schedule 1 (*Scope of Works and Services*).

Ref	Programme
2.2	Work Breakdown Structure
2.3	Pre-Construction Programme
2.7	Construction Programme
	Interaction with SDS Programme
2.11	Initial Buildability Report

2.14	Procedures for dealing with Unidentified Apparatus or Unrecorded Artificial Obstructions
2.18	Inputs to the Waste Management Plan
2.19	Inputs to the Construction Site Drainage Plan
2.20	Inputs to the Landscape and Habitat Management Plan
2.21	Inputs to the Archaeological & Heritage Mitigation Plan
2.22	Inputs to the Method of Working around Protected Species
2.23	Inputs to the strategy for controlling Invasive and Alien Species
2.24	Inputs to Condition and Defects Survey
	Management Systems
2.25	Management Systems – (Quality, Safety, Environmental)
	Traffic Management and TTROs
2.26.1	Traffic Management and Work Site Staging Plan
2.26.2	TTRO Obligations and Traffic Management Procedures
	Construction Advice
2.32	Temporary Works, Security and Fencing Arrangements Plan
2.33	Final Buildability Report
	Pricing & Cost Control
2.34	Anticipated Final Account
2.37	Benchmarking, Risk Management and Value Engineering Estimates and Reports
2.38	Update and provide details for Construction Stage Cost Reporting System
	Access Control Permits and Permits to Work
2.39	Access Control Permit Procedures
2.40	Permits to Work and Utility Permits to Work Procedures
	Health & Safety
2.42	Construction Health & Safety Plan
	Method Statements
2.44	Method Statement Procedures
	Communications, Meetings and Progress Reporting
2.45	Communications Plan

	Risk
5	The relevant Deliverables identified in Part 5 of this Schedule 1 (<i>Scope of Works and Services</i>).

3. Construction Services

Construction Programme

3.1 The MUDFA Contractor shall update the Construction Programme every four weeks to show its progress in completing the MUDFA Works. The updated Construction Programme and a progress report shall be submitted by the MUDFA Contractor to **tie** and TEL no later than 3 Business Days before each monthly progress meeting. Each monthly progress report shall include:

- 3.1.1 planned versus actual cost and a resource summary;
- 3.1.2 progress against milestones anticipated/required completion dates;
- 3.1.3 earned value report;
- 3.1.4 4 week forecast of activities;
- 3.1.5 8 week critical impact notice (any internal or external factor which may affect programme delivery);
- 3.1.6 labour histograms detailing planned, actual and forecast across all disciplines;
- 3.1.7 the activities begun and completed since the previous report and upon what dates;
- 3.1.8 the expected remaining duration of all activities begun but not completed;
- 3.1.9 additional activities with expected durations, methods, and resource requirements and sequence assumptions;
- 3.1.10 method statements for the next four weeks;
- 3.1.11 any changes to expected durations, method, resource requirements and sequence assumptions;

- 3.1.12 forecast completion dates for all MUDFA Works in each Work Section and Work Sector including any slippage or advance upon the Date for Completion;
- 3.1.13 programme comparison between actual vs planned;
- 3.1.14 summary health and safety records;
- 3.1.15 outstanding information schedule;
- 3.1.16 resource levels (man hour labour returns);
- 3.1.17 updates to the Change Control Register;
- 3.1.18 colour copies of a selection of two to five progress photographs for each Work Site within each Work Section during the month;
- 3.1.19 schedule of instructions; and
- 3.1.20 cost report.

Pricing and Cost Control

- 3.2 The MUDFA Contractor shall update the Anticipated Final Account every four weeks and shall provide **tie** with all necessary details and supporting documentation. The minimum requirements are defined below:
 - 3.2.1 all costs to be recorded and presented in accordance with the approved WBS including OHP, Main Contractor Prelims, Work Sector Prelims, Prime Cost Sums and Provisional Sums;
 - 3.2.2 the Tender Total shall be defined for each Work Sector and Work Section;
 - 3.2.3 the Anticipated Final Account;
 - 3.2.4 the Anticipated Final Account referred to in the Works Order Confirmation Notice;
 - 3.2.5 approved **tie** Changes and MUDFA Contractor Changes;
 - 3.2.6 pending **tie** Changes and MUDFA Contractor Changes;
 - 3.2.7 Anticipated Final Account this month;

- 3.2.8 Anticipated Final Account last month;
 - 3.2.9 variance between this month and last month;
 - 3.2.10 Application for Payment this month;
 - 3.2.11 Application for Payment last month;
 - 3.2.12 variance in Applications for Payment; and
 - 3.2.13 variance in Anticipated Final Account this month and the Anticipated Final Account agreed at the end of the Pre-Construction Phase.
- 3.3 The MUDFA Contractor shall ensure that that the Anticipated Final Account is compiled using appropriate rates and prices from the Bills of Quantities. Where the MUDFA Contractor considers that an item of work varies materially from the work described in the Bills of Quantities, the MUDFA Contractor shall provide details, including estimates of labour, plant and materials from the original Bills of Quantities for the proposed item of work, for approval by **tie**.
- 3.4 As required by **tie**, the MUDFA Contractor shall carry out a pro-active role in cost benchmarking, risk management and value engineering processes. This shall involve the production of "Benchmarking, Risk Management and Value Engineering Estimates and Reports". These Reports shall be provided by the MUDFA Contractor from time to time as required.

Communications, Meetings and Progress Reporting

- 3.5 The MUDFA Contractor shall continue to work in accordance with the Communications Plan.
- 3.6 As a minimum, the MUDFA Contractor shall attend the following meetings during the Construction Phase:

Meeting	Frequency	Chaired by / Minutes taken
Progress	4 weekly	tie
Design and Planning	Fortnightly	SDS Provider
Utilities Group	4 weekly	tie
Stakeholder and third	4 weekly	tie

party		
Site Meetings	4 weekly	MUDFA Contractor
Cost Review	Fortnightly	tie

3.7 The MUDFA Contractor shall liaise with the relevant parties to ensure that the MUDFA Contractor is copied into all relevant communications in order to ensure that any relevant construction-related issues, such as Temporary Works and practical constraints, are identified and addressed.

Interaction with the SDS Provider

3.8 The MUDFA Contractor shall liaise with **tie**, the SDS Provider, the Utilities and other affected third parties throughout the Construction Phase, to optimise progress and ensure that all issues relevant to the MUDFA Works are addressed timeously.

3.9 The MUDFA Contractor shall continue to support the SDS Provider in relation to the resolution of the policies and agreements for traffic management and the submission of the TTROs which will be required in respect of the MUDFA Works. The SDS Provider shall consult with and submit the TTRO requirements and schedules, to CEC in its capacity as roads authority. The MUDFA Contractor shall comply with the TTRO protocol developed by **tie**, CEC and the SDS Provider and shall support this process by preparing phasing plans, Work Site plans, Temporary Works method statements, assumptions registers, issues logs and any other means to ensure prompt resolution of issues which could affect the progress and economic execution of the MUDFA Works. This responsibility shall also include attendance by the MUDFA Contractor (as required by **tie**) at meetings in relation to the TTRO requirements and the MUDFA Contractor being involved (as required by **tie**) in any representations to the Council-led RAUC Committee, which convenes quarterly.

3.10 The MUDFA Contractor shall comply with the method statement entitled "Procedures for dealing with Unidentified Apparatus or Unrecorded Artificial Obstructions".

3.11 The MUDFA Contractor shall keep the Construction Programme under continuous review as the SDS Provider's designs evolve, so as to ensure that the SDS Provider's design release dates meet the MUDFA Contractor's requirements for mobilisation and construction. The MUDFA Contractor shall propose mitigation measures if the SDS

Provider's design release dates are not met. Mitigation measures shall include alternative execution strategies and proposals to re-deploy staff or operatives to minimise or avoid any cost implications.

- 3.12 The MUDFA Contractor shall similarly keep the scope of the MUDFA Works in particular the Construction Works and the estimated costs under review (in conjunction with the SDS Provider and **tie**), with regard to potential savings that may be identified.
- 3.13 The MUDFA Contractor shall manage any specialist contractor design elements carried out by any Utilities Specialist Contractor or by another third party which are required to progress the MUDFA Works (e.g. proprietary sewer rehabilitation design), and shall co-ordinate the same within the overall design process. The SDS Provider shall review the specialist contractor design elements and ensure that there are no conflicts with the SDS Provider's designs.

Traffic Management and TTROs

- 3.14 The MUDFA Contractor shall provide all necessary support to **tie** and SDS Provider to ensure that TTROs are obtained. The services and support which shall be provided by the MUDFA Contractor shall include the following:
- 3.14.1 the MUDFA Contractor shall work with the SDS Provider, **tie** and TEL to further refine the definition and staging of the MUDFA Works and the MUDFA Contractor shall comply with the Traffic Management and Work Site Staging Plan. This Plan shall be updated by the MUDFA Contractor every four weeks for review at design meetings and every four weeks at stakeholder and third party meetings.
- 3.14.2 The MUDFA Contractor shall comply with the project-specific procedures set out in the TTRO Obligations and Traffic Management Plan. By appropriate induction, the MUDFA Contractor shall ensure all site-based personnel, management staff, operatives and visitors are fully aware of and understand the procedures contained within this document. The designated project or site manager appointed by the MUDFA Contractor in relation to each Work Section shall be accountable for implementation and compliance with these requirements/procedures. The MUDFA Contractor shall ensure that the overriding considerations expressed in these procedures/requirements shall be the safety of road users, minimising disruption caused by the

MUDFA Works, pedestrian management and ensuring that traffic and pedestrian disruption is kept to a minimum. This shall include taking such measures as **tie** on behalf of CEC, in its capacity as roads authority, may reasonably require.

3.14.3 The MUDFA Contractor shall ensure that reasonable access to premises is maintained at all times in accordance with the TTRO Obligations and Traffic Management Procedures.

3.14.4 The MUDFA Contractor shall work with the Infraco to further develop the integrated traffic management plans which form part of the TTRO Obligations and Traffic Management Plan prepared by the MUDFA Contractor during the Pre-Construction Phase.

Construction Advice

3.15 Throughout the Construction Phase, the MUDFA Contractor shall continue to provide advice to the SDS Provider and such advice shall include the practical implications relative to the buildability of the design. The MUDFA Contractor shall also carry out a detailed review of the proposed drawings and specifications. In particular, the MUDFA Contractor shall confirm how the extent of necessary works can be minimised, diversions avoided, works re-planned, unidentified apparatus dealt with and abandoned apparatus treated.

3.16 The MUDFA Contractor may propose suitable alternative materials and components for use in relation to the MUDFA Works, subject to the approval of the SDS Provider and the relevant Utilities in accordance with paragraphs 2.5 and 2.9.

3.17 The MUDFA Contractor shall propose and agree with **tie** the construction methods which shall be utilised in respect of the MUDFA Works. The MUDFA Contractor shall also advise **tie** on the time and cost implications of alternative solutions, and shall initiate the requirements for Temporary Works, and the programme for approvals for such Temporary Works and the execution of them.

3.18 The MUDFA Contractor shall advise **tie** on the potential impact of the MUDFA Works upon neighbouring occupiers and users of nearby highways, and the MUDFA Contractor shall plan the execution of the MUDFA Works in such a way as to minimise disruption and prevent nuisance. The MUDFA Contractor shall continue to produce suitable registers, schedules and drawings.

- 3.19 The MUDFA Contractor shall continue to comply with the Temporary Works, Security and Fencing Arrangements Plan and the other requirements set out in the Final Buildability Report.

Interaction with the Utilities

- 3.20 In so far as reasonably practicable, the MUDFA Contractor shall manage arrangements with the Utilities in respect of the Utilities' involvement in the MUDFA Works in whatever capacity and in respect of any Utilities Works. This shall include:

- 3.20.1 the management of any sub-contract arrangements and materials supplies, if required in the context of the MUDFA Contractor appointing Utilities Specialist Contractors;
- 3.20.2 management of the Utilities in carrying out the Utilities Works;
- 3.20.3 establishing specific requirements and procedures for each Utility including: incident reporting and escalation, Access Permits, Utility Permits to Work, identification of unidentified Apparatus, handover (both ways), working on the same Work Site at the same time, health & safety issues, compliance with the CDM Regulations (which shall include the MUDFA Contractor retaining its role as the Principal Contractor in respect of the MUDFA Works and the Utilities Works unless expressly instructed to the contrary by **tie**), notifications to customers, inspections and access to the works by the Utilities;
- 3.20.4 agreement of the programme(s) where the Utility is undertaking any Utilities Works and integrating these programmes into the Construction Programme;
- 3.20.5 providing support to **tie** and the SDS Provider to obtain design approvals and agreements with the Utilities;
- 3.20.6 attendance at any Utility Group meetings; and
- 3.20.7 integration of communications with the Utilities, including reporting, resolution of queries and provision of any outstanding information etc.

Health and Safety

- 3.21

- 3.21.1 The Health and Safety File shall continue to be updated in accordance with Schedule 2 (*Technical Requirements for Contractors*).
- 3.21.2 The completed Health and Safety File shall be issued by the Planning Supervisor as a discrete deliverable at the end of the MUDFA. Information for inclusion within the Health and Safety File will however be provided by the SDS Provider and the MUDFA Contractor as the contract progresses. The information shall be provided to the timescales identified below:
- 3.21.2.1 On issue of the Certificate of Substantial Completion – hand annotated information;
- 3.21.2.2 Within six weeks of the issue of the Certificate of Substantial Completion – final issue of the information in it's fully drafted and collated form.
- 3.21.3 The information shall be prepared in a format such that a discrete package of information can be issued:
- 3.21.3.1 To each utility, identifying the scope of works that relates to their plant and equipment;
- 3.21.3.2 To each third party and tie, identifying the full scope of works that relates to the plant and equipment from all the utilities.
- 3.21.4 The information shall be issued to tie in the following formats:
- 3.21.4.1 paper copy;
- 3.21.4.2 electronic copy in read only format i.e. PDF; and
- 3.21.4.3 electronic copy in original format to enable updating e.g. word, excel and AutoCAD.

As Built Drawings

- 3.22 The MUDFA Contractor shall prepare and supply all necessary as built drawings and manuals in respect of the MUDFA Works.

4. Construction Works

General

- 4.1 The MUDFA Contactor shall supply all materials to complete the Construction Works unless otherwise stated.

Scotland Gas Network Apparatus

- 4.2 In respect of any works in relation to Scotland Gas Networks Apparatus which form part of the MUDFA Works, the MUDFA Contractor shall:
- 4.2.1 carry out and complete all civil engineering works required to complete the Scotland Gas Network Works, including, but not limited to excavation, chamber construction, pipelaying, installation of connections (including customer connections), installation of valves, pipe protection, pipe bedding, and reinstatement, in accordance with Schedule 3 (*Specification*) and the other relevant provisions of the Agreement;
 - 4.2.2 carry out all required testing, commissioning and associated certification in accordance with Schedule 3 (*Specification*), and the other relevant provisions of the Agreement;
 - 4.2.3 carry out any de-commissioning works required to be carried out to Scotland Gas Networks Apparatus to be abandoned, including its removal as required, in accordance with Schedule 3 (*Specification*) and the other relevant provisions of the Agreement, including the removal of existing apparatus as required;
 - 4.2.4 allow access for planned inspections by Scotland Gas Networks, after notice by Scotland Gas Networks of one Business Day and provide assistance as required by **tie**. Any reasonable costs incurred by the MUDFA Contractor in providing such assistance shall be paid by **tie**; and
 - 4.2.5 allow access to Scotland Gas Networks to carry out emergency repairs on Scotland Gas Networks Apparatus and provide assistance as required by **tie**. Any reasonable costs incurred by the MUDFA Contractor in providing such assistance shall be paid by **tie**.

Scottish Water Apparatus

4.3 In respect of any works in relation to Scottish Water Apparatus which form part of the MUDFA Works, the MUDFA Contractor shall:

4.3.1 carry out and complete all civil engineering works required to complete the Scottish Water Works, including, but not limited to excavation, chamber construction, pipelaying, installation of connections (including customer connections), installation of valves, pipe protection, pipe bedding, sewer rehabilitation, and reinstatement, in accordance with Schedule 3 (*Specification*) and the other relevant provisions of the Agreement;

4.3.2 carry out all required testing, commissioning and associated certification in accordance with Schedule 3 (*Specification*), and the other relevant provisions of the Agreement;

4.3.3 carry out any de-commissioning works required to be carried out to Scottish Water Apparatus to be abandoned, including its removal as required, in accordance with Schedule 3 (*Specification*) and the other relevant provisions of the Agreement;

4.3.4 allow access for planned inspections by Scottish Water, after notice by Scottish Water of one Business Day and provide assistance as required by **tie**. Any reasonable costs incurred by the MUDFA Contractor in providing such assistance shall be paid by **tie**; and

4.3.5 allow access to Scottish Water to carry out emergency repairs on Scottish Water Apparatus and provide assistance as required by **tie**. Any reasonable costs incurred by the MUDFA Contractor in providing such assistance shall be paid by **tie**.

BT Apparatus

4.4 In respect of any works in relation to BT Apparatus which form part of the MUDFA Works, the MUDFA Contractor shall:

4.4.1 in so far as reasonably practicable agree a programme and method statement with BT for all works to be carried out by BT;

4.4.2 carry out and complete all required civil engineering works including but not limited to excavation, chamber construction, duct laying, duct bedding, duct protection, laying of warning tape, and reinstatement all in accordance with

the Schedule 3 (*Specification*) and the other relevant provisions of the Agreement;

- 4.4.3 allow BT access to provide, lay and joint all cables necessary to complete the works being undertaken by BT, and to allow BT to carry out all necessary commissioning and testing. For the avoidance of doubt, BT shall be supplying all materials for cabling and jointing;
 - 4.4.4 allow BT access to decommission any BT Apparatus made redundant by the MUDFA Works, including the removal of existing apparatus as required;
 - 4.4.5 allow access for planned inspections by BT, after notice by BT of one Business Day; and
 - 4.4.6 allow access to BT to carry out emergency repairs on BT Apparatus.
- 4.5 The obligations on the MUDFA Contractor to allow BT access in paragraphs 4.4.3, 4.4.4, 4.4.5 and 4.4.6 shall only apply when the MUDFA Contractor is in control of the Work Site where BT is carrying out the activities described in these paragraphs. In such circumstances, the MUDFA Contractor shall provide BT with assistance as required by **tie** to carry out the work described. Any reasonable costs incurred by the MUDFA Contractor in providing such assistance shall be paid by **tie**. When the MUDFA Contractor is not in control of the Work Site, BT shall make its own arrangements.

Easynet Apparatus

- 4.6 In respect of any works in relation to Easynet Apparatus which form part of the MUDFA Works, the MUDFA Contractor shall:
- 4.6.1 carry out and complete all required civil engineering works including but not limited to excavation, chamber construction, duct laying, duct bedding, duct protection, laying of marker tape and reinstatement all in accordance with the Schedule 3 (*Specification*) and the other relevant provisions of the Agreement;
 - 4.6.2 procure that Easynet (or a sub-contractor approved by Easynet) carries out all required cable laying in accordance with the Schedule 3 (*Specification*) and the other relevant provisions of the Agreement, for the avoidance of doubt

this shall include supply by Easynet of all cable materials required by Easynet, (or a sub-contractor approved by Easynet);

- 4.6.3 procure that Easynet (or a sub-contractor approved by Easynet) carries out all required connections to existing Easynet Apparatus and all required connections to customers in accordance with the Schedule 3 (*Specification*) and the other relevant provisions of the Agreement for the avoidance of doubt this shall include supply by Easynet of all cable connection materials required;
- 4.6.4 procure that Easynet (or a sub-contractor approved by Easynet) carries out all required testing and commissioning in accordance with the Schedule 3 (*Specification*) and the other relevant provisions of the Agreement for the avoidance of doubt this shall include supply of all materials required;
- 4.6.5 procure that any redundant Easynet Apparatus is decommissioned by Easynet (or a sub-contractor approved by Easynet) in accordance with the Schedule 3 (*Specification*) and the other relevant provisions of the Agreement, including the removal of existing apparatus as required. For the avoidance of doubt this shall include supply by Easynet of all cable and cable related materials required;
- 4.6.6 allow access for planned inspections by Easynet, after notice by Easynet of one Business Day and provide assistance as required by **tie**. Any reasonable costs incurred by the MUDFA Contractor in providing such assistance shall be paid by **tie**; and
- 4.6.7 allow access to Easynet to carry out emergency repairs on Easynet apparatus and provide assistance as required by **tie**. Any reasonable costs incurred by the MUDFA Contractor in providing such assistance shall be paid by **tie**.

Thus Apparatus

- 4.7 In respect of any works in relation to Thus Apparatus which form part of the MUDFA Works, the MUDFA Contractor shall:
 - 4.7.1 carry out and complete all required civil engineering works including but not limited to excavation, chamber construction, duct laying, duct bedding, duct protection, laying of marker tape and reinstatement all in accordance with the

Schedule 3 (*Specification*) and the other relevant provisions of the Agreement;

- 4.7.2 carry out all required cable laying in accordance with the Schedule 3 (*Specification*) and the other relevant provisions of the Agreement;
- 4.7.3 carry out all required duct connections to existing Thus Apparatus and all required duct connections to customers in accordance with the Schedule 3 (*Specification*) and the other relevant provisions of the Agreement;
- 4.7.4 carry out all required duct and chamber testing and commissioning in accordance with the Schedule 3 (*Specification*) and the other relevant provisions of the Agreement;
- 4.7.5 decommission any redundant Thus Apparatus in accordance with the Schedule 3 (*Specification*) and the other relevant provisions of the Agreement, including the removal of existing apparatus as required;
- 4.7.6 allow access for planned inspections by Thus, after notice by Thus of one Business Day and provide assistance as required by **tie**. Any reasonable costs incurred by the MUDFA Contractor in providing such assistance shall be paid by **tie**; and
- 4.7.7 allow access to Thus to carry out emergency repairs on Thus Apparatus and provide assistance as required by **tie**. Any reasonable costs incurred by the MUDFA Contractor in providing such assistance shall be paid by **tie**.

NTL Apparatus

- 4.8 In respect of any works in relation to NTL Apparatus which form part of the MUDFA Works, the MUDFA Contractor shall:
 - 4.8.1 carry out and complete all required civil engineering works including but not limited to excavation, chamber construction, duct laying, duct bedding, duct protection, laying of marker tape and reinstatement all in accordance with the Schedule 3 (*Specification*) and the other relevant provisions of the Agreement;
 - 4.8.2 carry out all required cable laying in accordance with the Schedule 3 (*Specification*) and the other relevant provisions of the Agreement;

- 4.8.3 carry out all required connections to existing NTL Apparatus and all required connections to customers in accordance with the Schedule 3 (*Specification*) and the other relevant provisions of the Agreement;
- 4.8.4 carry out all required testing and commissioning in accordance with the Schedule 3 (*Specification*) and the other relevant provisions of the Agreement;
- 4.8.5 decommission any redundant NTL Apparatus in accordance with the Schedule 3 (*Specification*) and the other relevant provisions of the Agreement, including the removal of existing apparatus as required;
- 4.8.6 allow access for planned inspections by NTL, after notice by NTL of one Business Day and provide assistance as required by **tie**. Any reasonable costs incurred by the MUDFA Contractor in providing such assistance shall be paid by **tie**; and
- 4.8.7 allow access to NTL to carry out emergency repairs on NTL apparatus and provide assistance as required by **tie**. Any reasonable costs incurred by the MUDFA Contractor in providing such assistance shall be paid by **tie** .

5. Risk

5.1 The MUDFA Contractor shall:

Required Action from the MUDFA Contractor	Timing/Frequency applicable to the MUDFA Contractor
<p>1. Provide input to the project risk management plan developed by or on behalf of tie, in respect of matters which are applicable to the MUDFA Contractor.</p> <p>This input should be provided by the MUDFA Contractor in the form of a plan which shall confirm the roles and responsibilities of the MUDFA Contractor, the risk management process which shall be adopted by the MUDFA Contractor and how the plan prepared by the MUDFA Contractor shall contribute to the existing project risk management plan in terms of how the MUDFA Contractor intends to manage risk throughout the duration of this Agreement.</p> <p>The MUDFA Contractor shall ensure that this plan shall indicate the critical success factors for the MUDFA Contractor, key areas of focus and individuals involved and the MUDFA Contractor's proposals for risk management controls for specific areas such as construction risks that tie or any tie Party may not be aware of.</p>	<p>Input to project risk management plan within 2-month of the Effective Date and monthly updates thereafter throughout the duration of this Agreement.</p>
<p>2. Support tie with contributions to the project assumptions register developed by or on behalf of tie. This register will record all capex, opex, lifecycle, revenue, programme, quality, functionality and approvability assumptions and consequential risks to the Edinburgh Tram Network throughout</p>	<p>Input from the MUDFA Contractor to commence within 2 months of the Effective Date and continue monthly throughout the duration of this Agreement</p>

Required Action from the MUDFA Contractor	Timing/Frequency applicable to the MUDFA Contractor
<p>the scheme development, design procurement, construction and pre-operational phases of the project. The assumptions register will also be used to contribute to the project risk register referred to below.</p> <p>The MUDFA Contractor shall identify any consequential risks specific to this Agreement and notify tie and the SDS Provider of any such risks.</p>	
<p>3. Liaise with the SDS Provider, Infraco, tie, the tie project team and tie's technical, legal, financial and other advisors, regarding risk matters.</p> <p>Liaison to include attendance at risk management meetings and assistance with the risk identification procedure relevant to this Agreement which will be carried out by tie, and attendance at any risk management workshops which will be facilitated to allow a sharing of previous experience.</p>	<p>Monthly risk management meetings, risk management workshops as notified to the MUDFA Contractor from time to time and other ongoing liaison with tie, tie's project team, key stakeholders, the Infraco, and tie's technical, legal and other advisers throughout the duration of this Agreement</p>
<p>4. Contribute to the project risk register. This register will detail all capex, opex, lifecycle, revenue, programme, quality, functionality and approvability risks to the Edinburgh Tram Network and the proposed mitigation of these risks.</p> <p>The project risk register will include analysis of each risk in terms of 'likelihood' and 'impact' prior to and following mitigation, responsible owners of each risk and graphical summaries of risk profile. Risks to be addressed will include strategic,</p>	<p>Input from the MUDFA Contractor to commence within 2-months of the Effective Date and continue throughout the duration of this Agreement.</p>

Required Action from the MUDFA Contractor	Timing/Frequency applicable to the MUDFA Contractor
<p>commercial, construction, economic, legal and regulatory, organisational, environmental, technical, operational and infrastructure risks.</p> <p>The MUDFA Contractor shall inform tie and the SDS Provider of all risks which the MUDFA Contractor has identified will affect the MUDFA Contractor throughout the duration of this Agreement. This shall also include informing tie and the SDS Provider of initial mitigation procedures for the risks which the MUDFA Contractor has identified and presenting at risk workshops to confirm mitigation strategies and timeframes.</p> <p>In respect of this Agreement, the MUDFA Contractor shall provide input to tie and the SDS Provider in the quantification of risk pricing to ensure that adequate project contingencies are generated for risk pricing and programme risk contingencies (e.g. lead-in times, mobilisation, order periods et al).</p>	
<p>5. Prepare and submit a risk progress report to tie on the status of risk management and mitigation, giving a summary of new risks and assumptions identified, key matters to be resolved and any risks that have been closed out during certain time limits.</p> <p>The report to be provided by the MUDFA Contractor should indicate “Red-Amber-Green” (RAG) status areas including assumptions and key uncertainties, implementation of quality controls, implementation of risk management plan and the progression and development of project risks.</p>	<p>Agree format of the MUDFA Contractor's required monthly risk report with tie's designated risk manager (as notified to the MUDFA Contractor from time to time) within 2-months of the Effective Date and submit monthly report to tie throughout the duration of this Agreement</p>

Required Action from the MUDFA Contractor	Timing/Frequency applicable to the MUDFA Contractor
<p>6. Create and submit a construction hazard report which comprises a Hazard Identification stage (HAZID)/Hazard Operability study (HAZOP) and include contribution from the key parties including the Utilities, the SDS Provider, tie and the Planning Supervisor. The construction hazard report shall confirm in detail business continuity plans, mitigation plans and controls for all site risks including property damage, safety, utility damage etc.</p> <p>In addition, the MUDFA Contractor through an appropriate number of workshops to generate a clear and complete picture of the hazards and identify the proposed mitigation strategies for all works to be undertaken by MUDFA Contractor. The risks and assumptions shall also be relayed to SDS Provider and tie for inclusion in the appropriate registers.</p>	<p>The MUDFA Contractor must submit the construction hazard report to tie at least 4 weeks before any form of construction takes place.</p>

6. Stakeholder Management

Liaison and public information

- 6.1 The MUDFA Contractor shall appoint a liaison officer to manage all public relations, information and press related matters, who shall, along with the necessary technical, commercial and other MUDFA Contractor resource, liaise with **tie**, TEL, and if so requested by **tie**, CEC, other statutory bodies, HMRI, members of the public, local businesses, press and the media as may be necessary on all matters relating to the MUDFA Works. Except where expressly stated in this Agreement, the MUDFA Contractor shall not make any publicity or media statements or make any other formal disclosure of information regarding the MUDFA Works without the prior approval of **tie**.
- 6.2 The liaison obligation referred to in paragraph 6.1 shall include, but shall not be limited to the following matters:
- 6.2.1 participating as required in business, stakeholder and community liaison groups, public meetings and consultation meetings as the progress of the MUDFA Works dictate;
 - 6.2.2 providing proactive input, information and comment into information initiatives organised by or on behalf of **tie** and attending as requested by **tie** at any relevant consultation meetings;
 - 6.2.3 assisting **tie** with the development and maintenance of, and adherence to, a communications protocol for dealing with all stakeholders and members of the public affected by the MUDFA Works;
 - 6.2.4 assisting with the development and maintenance of procedures developed by **tie** in relation to stakeholder management by way of the provision of information relating to the MUDFA Works;
 - 6.2.5 provision of weekly updates to **tie** on the progress of the MUDFA Works and all planned works in a form reasonably requested by **tie**;
 - 6.2.6 informing **tie** at least two weeks in advance of all plans for any formal communication with stakeholders, businesses and members of the public. The form and content of such formal communication shall be subject to **tie's** prior approval;

- 6.2.7 provision to **tie** of all information reasonably requested by **tie** in respect of the MUDFA Works planned in a form prescribed by **tie**;
- 6.2.8 recruiting and providing "Tram Helpers" to man each of the Work Sections at the time when the MUDFA Contractor is carrying out the MUDFA Works to provide a customer interface. The identity of Tram Helpers employed by the MUDFA Contractor will be subject to the individual prior approval of **tie**. If required by **tie** and/or TEL, Tram Helpers shall be required to undergo an induction process which may include briefing as to information they will be required to disseminate in relation to alterations to bus services brought about by the MUDFA Works and the MUDFA Contractor shall comply with all reasonable requirements of **tie**/TEL in respect of the duties and role of the Tram Helpers;
- 6.2.9 provision and use of approved branding materials, PPE kit and boarding at all operational Work Sections. No such materials, kit or boarding shall be erected at any Work Section without the prior approval of **tie**;
- 6.2.10 providing traffic re-routing maps in accordance with the terms of the TTROs for all areas affected by the MUDFA Works in advance of the MUDFA Works starting in any particular Work Section as may be requested by **tie**. In the event that **tie** requires that such material is for public issue, public issue shall not occur before the form and content has been approved by **tie**; and
- 6.2.11 ensuring that all public statements, including by way of the media referred to in paragraphs 6.3, 6.4 and 6.5 below, in relation to the MUDFA Works are consistent with TEL's Communications Strategy.

Information Centre and Website

- 6.3 The MUDFA Contractor shall provide all information and documentation regarding the MUDFA Works as may be reasonably required by **tie** in respect of the mobile and fixed information centres being operated by **tie** in relation to the Edinburgh Tram Network.

The MUDFA Contractor shall also provide all information regarding the MUDFA Works reasonably requested by **tie** in order to populate the website which shall be maintained and operated by **tie** in respect of the works being carried out in relation to the Edinburgh Tram Network.

Weekly Newsletter

6.4 The MUDFA Contractor shall publish a weekly newsletter every Wednesday, detailing works to be undertaken in the forthcoming week and outlining, with appropriate maps, drawings and diagrams, the impact on the general public and, in particular, any alterations to road traffic circulation patterns required by the coming week's works. This newsletter, the contents and format of which shall have the prior approval of **tie** and TEL, will be issued, if requested by **tie**, by fax and email to: local and national newspapers and other news media, The City of Edinburgh Council, Lothian and Borders Police, the emergency services, to any party or parties requested by **tie** and to any other persons or organisations that have requested receipt of the newsletter.

The newsletter shall also be distributed door to door by the MUDFA Contractor in affected locations and the MUDFA Contractor shall inform **tie** when such distribution is occurring. The MUDFA Contractor shall monitor and record the distribution of the newsletter, recording who is carrying out such distribution, the intended recipients etc. so as to enable **tie** to carry out its own audit and monitoring of such distribution.

Sufficient free distribution, take-away hard copies of the newsletter shall be placed in the information centre by the MUDFA Contractor before 08:00 every Thursday morning.

The MUDFA Contractor is required to submit the draft newsletter to **tie** no later than midday on the Monday immediately preceding the proposed issue of the newsletter on the Wednesday. **tie** and TEL will respond before 1700 hours the same day.

The MUDFA Contractor shall provide all information and assistance reasonably requested by **tie** in relation to the publication by **tie** of a monthly newsletter in relation to the progress of and future plans for the Edinburgh Tram Network.

Call Centre

6.5 The telephone number, fax number and e-mail address of the call centre to be operated by **tie** in relation to the Edinburgh Tram Network (the "hotline") shall be publicised through the press and the weekly newsletter and clearly displayed on all appropriate PPE kit, hoardings around every worksite and at other suitable locations within and in the vicinity of the MUDFA Works.

Contacts Log

6.6 All contacts, communications, complaints, comments and queries howsoever received by the MUDFA Contractor shall be registered in a suitable electronic log (the "communication log"). The communication log will set out each contact under the type (eg General, Traffic, Safety, Vibration, Noise, Dirt, Disruption, Injury, Parking, Access, RTA, Publicity, Suggestions etc). The method of approach shall also be logged (eg telephone, direct, letter, e-mail), as well as the time and date. The log shall be constructed such that statistical analysis of the different communications can be presented as part of the data to be provided to **tie** by the MUDFA Contractor in their monthly progress report. The MUDFA Contractor is required to take such steps as are required to address any such contact, communication, complaint, comment or query in accordance with Table 1 below. To the extent that a stricter response requirement is otherwise required under this Agreement, the stricter response requirement shall apply. To the extent that Table 1 provides for the recovery of any amount by **tie** from the MUDFA Contractor, such amount may be deducted from any monies due to or to become due to the MUDFA Contractor or, alternatively, may be recovered from the MUDFA Contractor as a debt. A record of remedial action shall be logged. In the event of a complaint a follow up letter or electronic communication shall be passed to the complainant within 24 hours of the initial complaint, outlining the complaint and the remedial action being undertaken by the MUDFA Contractor. An up to date copy of the communication log shall be compiled daily by the MUDFA Contractor, together with a report on the progress of any actions. The communication log shall be inspected and signed daily by a nominated senior representative of the MUDFA Contractor and shall be counter signed by the MUDFA Contractor's Representative at least once per week. The MUDFA Contractor's Representative shall write a report to **tie** and/or the Nominated City Officer of CEC (as notified by **tie** from time to time) at least once per month containing a list of any breaches of the Agreement including the requirements of this Schedule 1 (*Scope of Works and Services*) and Schedule 2 (*Technical Requirements*) occurring within the previous month, setting out;

- the nature of the breach;
- the duration of the breach;
- the action taken by the MUDFA Contractor to mitigate the breach; and
- the steps taken to minimise the likelihood of a subsequent occurrence of the breach.

Subject to the MUDFA Contractor obtaining **tie**'s prior approval, a copy of each week's communication log shall be placed every Friday in the information centres, where it will remain until completion of the MUDFA Works. Any person, including representatives of **tie** and CEC's Nominated City Officer, may freely inspect all deposited copies of the communication log during the normal opening hours of the information centres. The version of communication log on public display should not breach any data protection legislation or other applicable Law.

Copies of the communication log shall be forwarded to **tie**'s Representative and/or and CEC's Nominated City Officer once per week. The master communication log shall be available for **tie**'s Representative and CEC's Nominated City Officer to inspect at any other time during normal working hours.

Table 1

Level of Urgency	Category of Notification	Required Response Time
1	High urgency. Involves an immediate threat to persons or property or the circumstances otherwise require immediate rectification.	Immediate action required. If response not completed by the MUDFA Contractor within 4 hours or such longer time as tie may at its absolute discretion agree,, tie may procure that the relevant work is carried out and the costs of so doing shall be recovered from the MUDFA Contractor.
2	Medium urgency. No immediate threat to persons or property, but circumstances require rectification within 24 hours.	Remedial action requires to be completed within 24 hours. If the MUDFA Contractor does not complete the required response within 24 hours or such longer time as tie may at its absolute discretion agree, tie may procure that the relevant work is carried out and the costs of so doing shall be recovered from the MUDFA Contractor.
3	Issue requires rectification, but no immediate threat to persons or property	Timescales for rectification to be agreed between the MUDFA

Level of Urgency	Category of Notification	Required Response Time
	and the circumstances do not otherwise require immediate rectification.	Contractor and tie . In the event that the MUDFA Contractor does not comply with the agreed timescales, tie may procure that the relevant work is carried out and the costs of so doing shall be recovered from the MUDFA Contractor.

7. Temporary Accommodation and Vehicle Specification

ACCOMMODATION - GENERAL REQUIREMENTS

7.1 The MUDFA Contractor shall prepare and submit for approval by **tie's** Representative an office layout based on the accommodation description set out below. The MUDFA Contractor shall then provide and maintain to the satisfaction of **tie's** Representative, accommodation in accordance with the requirements of this Part 7 as follows:

7.1.1 office accommodation to accommodate 10 desks and 1 table and 1 drawing board, each with a minimum working space of 5.5 m²;

7.1.2 2 meeting rooms suitable for sitting up to 20 and 8 people respectively around a table in each room;

7.1.3 male and female toilets. Minimum area 3m² each;

7.1.4 kitchen. Minimum area 6m²;

7.1.5 drying room. Minimum area 6 m²;

7.1.6 shower room. Minimum area 3m²; and

7.1.7 parking for up to 10 cars.

7.2 The MUDFA Contractor shall integrate this accommodation with the MUDFA Contractor's own accommodation and, subject to proposals which are acceptable to **tie's** Representative, the meeting rooms and welfare facilities may be shared by the MUDFA Contractor.

FITTINGS AND FURNISHINGS

Office

7.3 The MUDFA Contractor shall provide an office for use by **tie's** Representative, **tie** staff and visiting Utilities' staff with the following as minimum requirements:

7.3.1 10 office desks with at least one drawer provided with lock and key;

7.3.2 10 fully adjustable swivel cloth upholstered chairs on castors to accompany desks;

- 7.3.3 3 x 4 drawer lockable metal filing cabinets;
- 7.3.4 2 wall mounted notice board 1m high 1.5m wide;
- 7.3.5 5 waste paper baskets;
- 7.3.6 6 telephones connected to 2 lines;
- 7.3.7 1 Fax machine connected to a separate line;
- 7.3.8 1 high output combined printer and photocopier capable of producing A4 and A3 black and white copies;
- 7.3.9 10 connections to internet via broadband, all able to connect at same time;
- 7.3.10 1 plan layout table 1 x 2 m;
- 7.3.11 1 A0 Drawing Board;
- 7.3.12 6 desk lamps;
- 7.3.13 12 letter tray/ filing baskets;
- 7.3.14 2 m of book shelves at 6 of the desks; and
- 7.3.15 2 large white boards.

7.4 Meeting rooms

- 7.4.1 28 stacking chairs.
- 7.4.2 tables for meeting rooms, large enough to seat the number specified in paragraph 7.4.1 above;
- 7.4.3 3 flip charts and flip chart paper as required; and
- 7.4.4 1 large wall mounted white board.

7.5 Kitchen

- 7.5.1 1 x 4 ring cooker;
- 7.5.2 1 microwave cooker;

- 7.5.3 1 electric kettle;
- 7.5.4 20 mugs;
- 7.5.5 10 sets of cutlery and plates;
- 7.5.6 supply of potable water from main supply;
- 7.5.7 kitchen sink with running hot and cold water;
- 7.5.8 power points for cookers and kettle; and
- 7.5.9 2 x water dispensers.

7.6 Toilets

- 7.6.1 Each to be fitted with WC and wash hand basin with running hot and cold water.

7.7 Drying room

- 7.7.1 2 chairs;
- 7.7.2 20 coat pegs mounted on wall; and
- 7.7.3 1 boot pull.

7.8 General

- 7.8.1 sufficient fire extinguishers to meet fire regulations;
- 7.8.2 sufficient electricity power points to service all rooms and desks;
- 7.8.3 sufficient lighting and heating to meet the minimum requirements under the Workplace (Health, Safety and Welfare) Regulations 1992;
- 7.8.4 windows complying, both in area and ability to open, with the Building Standards (Scotland) Regulations 1981. The windows shall be provided with blinds and fitted with security grilles/ shutters;
- 7.8.5 a security alarm system shall be provided;
- 7.8.6 access doors, fitted with five lever mortice locks. The MUDFA Contractor shall also provide 6 sets of keys;

- 7.8.7 hose connected to main water supply for cleaning boots, at entrance door to the office;
- 7.8.8 Boot cleaning brushes at entrance door to the office; and
- 7.8.9 door mats.

SERVICES

- 7.9 The MUDFA Contractor shall install and maintain a potable water supply to the welfare facilities and pay for any charges.
- 7.10 The MUDFA Contractor shall ensure that a constant and steady current electricity supply at 240V AC is provided and maintained to the office, meeting rooms and the other parts of the accommodation provided by the MUDFA Contractor at all times, and the MUDFA Contractor shall pay for any charges.
- 7.11 The MUDFA Contractor shall install and maintain the two telephone lines, linked to 6 telephone points, serving the office accommodation for **tie's** Representative, **tie** staff and the Utilities throughout the duration of the MUDFA Works. Both lines shall be linked to Broadband. The cost of line rental, calls, Broadband connection and Broadband rental shall be paid by the MUDFA Contractor.
- 7.12 The MUDFA Contractor shall install and maintain a minimum of one fixed line laser fax machine serving the office accommodation for **tie's** Representative, **tie** staff and the Utilities throughout the duration of MUDFA Works. The cost of line rental and calls shall be paid by the MUDFA Contractor. Subject to acceptable proposals, the fax machine may be shared by the MUDFA Contractor, **tie's** Representative and **tie** staff.
- 7.13 The MUDFA Contractor shall install and maintain a modern printer/photocopier capable of producing A4 and A3 size black and white photocopies. The MUDFA Contractor shall ensure that sufficient stocks of consumables (including paper and toner) are available at all times. Subject to acceptable proposals, the photocopier may be shared by the MUDFA Contractor, **tie's** Representative and **tie** staff.
- 7.14 The MUDFA Contractor shall install and maintain a minimum of two broadband internet lines within the office accommodation for **tie's** Representative and **tie** staff for the exclusive use of **tie's** Representative and **tie** staff throughout the duration of

the MUDFA Works. The cost of line rental and usage charges shall be paid by the MUDFA Contractor.

- 7.15 The MUDFA Contractor shall provide tea, coffee, sugar fresh milk and a suitable drinking water supply for use by **tie's** Representative and **tie** staff for the duration of the MUDFA Works.
- 7.16 The MUDFA Contractor shall arrange for cleaning of the office, meeting rooms and welfare facilities daily and shall ensure that welfare and messing facilities are kept in a clean and hygienic condition at all times. Toilet paper, paper towels, soap, and detergents shall be provided as required.

EQUIPMENT


- 7.17 The MUDFA Contractor shall provide the following equipment for the exclusive use of **tie's** Representative and **tie** staff throughout the duration of the MUDFA Works:
- 7.17.1 6 x 10m long steel tape measures;
- 7.17.2 4 x 50m long tape measures;
- 7.17.3 4 x high output hand-held torches;
- 7.17.4 2 approved utility tracers capable of tracing cables and pipes; and
- 7.17.5 other consumables as may be required (i.e. marker paint etc.).

SITE VEHICLES


- 7.18 The MUDFA Contractor shall provide four white and liveried four wheel drive pick up vehicles (e.g. Nissan Nivara 2.5TD Double Cab Aventura or equivalent.) and one plain-coloured, four wheel drive vehicle people carrier transport for the exclusive use of **tie's** Representative and **tie** staff and visitors throughout the period from the issue of the relevant Work Order Confirmation Notice until 6 months following the issue of the last Certificate of Substantial Completion. The vehicles shall be delivered and maintained by the MUDFA Contractor in good, roadworthy condition. They shall be licensed and insured by the MUDFA Contractor for use on the public highway and shall have comprehensive insurance cover for any qualified driver authorised by **tie's** Representative, together with any authorised passengers and the carriage of goods or samples. The MUDFA Contractor shall provide fuel, oil and maintenance in conformity with the vehicle manufacturers' recommendations and shall clean the

vehicles inside and outside as required. A suitable replacement vehicle shall be provided by the MUDFA Contractor for any vehicle out of service for more than 24 hours.

- 7.19 The MUDFA Contractor shall ensure that each vehicle shall be fitted with approved warning beacons and any other safety equipment as required for work on highways or within Edinburgh International Airport.



Director/Authorised Signatory
TIE LIMITED



Director/Authorised Signatory
Alfred McAlpine Infrastructure Services Limited

**THIS IS SCHEDULE 2 REFERRED TO IN THE FOREGOING AGREEMENT BETWEEN
TIE AND THE MUDFA CONTRACTOR**

SCHEDULE 2

TECHNICAL REQUIREMENTS

1. MANAGEMENT SYSTEMS

1.1 The MUDFA Contractor shall implement and comply with the following management systems:

1.1.1 a "quality management system" in accordance with ISO 9001;

1.1.2 a "safety management system" in accordance with ISO 18001 or HSG65; and

1.1.3 an "environmental management system" in accordance with ISO 14001.

2. INSTRUCTION AND TRAINING

2.1 The MUDFA Contractor shall ensure that its employees, Sub-Contractors, agents and others on Site undertake a number of inductions. These shall comprise:

2.1.1 **tie's** project-specific induction;

2.1.2 project-specific induction for the MUDFA Works (provided by the MUDFA Contractor);

2.1.3 area-specific induction (on road, off road, railway land and airport land), (provided by the MUDFA Contractor); and

2.1.4 worksite and task-specific-induction including a method statement briefing and toolbox talk, (provided by the MUDFA Contractor).

2.2 Any persons who have not received the induction, for example visitors, shall be escorted on Site by a competent inducted person.

2.3 The MUDFA Contractor shall maintain induction and training records in order that **tie** can inspect them. These records shall identify the scope of the induction and training and the persons who received them.

3. SAFE SYSTEMS

3.1 Risk Assessments

3.1.1 The MUDFA Contractor shall prepare risk assessments for all work activities being undertaken.

3.1.2 Each risk assessment shall include as a minimum the following details:

3.1.2.1 Document control

- (a) document title and number;
- (b) revision status;
- (c) authorisation for use; and
- (d) reference to supplementary documentation.

3.1.2.2 identification of any hazards;

3.1.2.3 identification of those who might be harmed, and how; and

3.1.2.4 an evaluation of the risks and, in relation to each risk, the control measures required to reduce the risk to an appropriate level.

3.2 Method Statements

3.2.1 The MUDFA Contractor shall prepare method statements for all work activities which fall within the definition of "construction work" under the Construction (Design & Management) Regulations 1994. Each method statement shall relate to the relevant work location.

3.2.2 Each method statement shall include as a minimum the following details:

3.2.2.1 Document control

- (a) document title and number;
- (b) revision status;
- (c) authorisation for use; and

- (d) reference to supplementary documentation.

3.2.2.2 General information

- (a) description and scope of work;
- (b) location and boundaries (including sketch or site plan if appropriate); and
- (c) access routes for personnel and materials and equipment.

3.2.2.3 Resources

- (a) number of personnel (including function and role);
- (b) contacts; and
- (c) lines of communication.

3.2.2.4 Details of work activities

- (a) detailed work sequence;
- (b) plant, equipment and tools to be used;
- (c) personal protective equipment required;
- (d) delivery requirements;
- (e) wastes produced, and means of disposal; and
- (f) inspection and testing requirements, including details of:
 - (i) acceptance criteria;
 - (ii) quality control checklists and record forms to be used;
 - (iii) frequencies of inspections and testing; and
 - (iv) documentation which is required prior to the issue of a Certificate of Substantial Completion in respect of the relevant Work Section.

3.2.2.5 Specific control measures

- (a) permits and authorisations required; and
- (b) temporary amended systems.

3.2.2.6 Emergency procedures

- (a) Evacuation and rescue.

3.2.2.7 Supplementary documentation

- (a) risk assessments; and
- (b) COSHH assessments.

3.2.3 The documentation referred to in paragraph 3.2.2 above shall be developed so that it is specific to the MUDFA Works. The MUDFA Contractor shall ensure that revisions and updates can be identified.

3.2.4 The MUDFA Contractor shall issue a copy of its procedure for the production of method statements and risk assessments to **tie** for approval in accordance with the Review Procedure.

3.3 **Submission of Risk Assessments & Method Statements**

3.3.1 A 4-week "look ahead" schedule identifying the required scope of works shall be issued to **tie** by the MUDFA Contractor. This schedule shall identify the relevant risk assessments and method statements which are required in respect of each such scope. **tie** shall identify which risk assessments and method statements require to be provided by the MUDFA Contractor to **tie** in accordance with paragraph 3.3.2 below.

3.3.2 In so far as not submitted as part of any Work Order Proposals, the MUDFA Contractor shall issue risk assessments and method statements to **tie** a minimum of 5 Business Days prior to the commencement of the works which are the subject of the method statements and risk assessments.

3.3.3 In so far as not included within a Work Order Confirmation Notice, **tie** shall review the risk assessments and method statements and issue comments to the MUDFA Contractor within 5 Business Days of receipt.

3.3.4 The MUDFA Contractor shall not undertake any works for which a risk assessment or method statement has been requested without the agreement of **tie**.

3.3.5 Irrespective of whether or not **tie** has reviewed all risk assessments and method statements produced by the MUDFA Contractor, the MUDFA Contractor shall issue one copy of each risk assessment and method statement to **tie** for information purposes before any work commences.

3.4 Access Permit

3.4.1 The MUDFA Contractor shall comply with **tie**'s system for controlling access to undertake work activities, which shall require the MUDFA Contractor to obtain an approved access permit from **tie** ("**Access Permit**") for each Work Site within each Work Section.

3.4.2 In so far as not included within any Work Order Proposals, the MUDFA Contractor shall submit a form for each required Access Permit ("**Access Permit Form**") which is required, to **tie** a minimum of 5 Business Days in advance of the access being required.

3.4.3 The MUDFA Contractor shall advise **tie** of the persons within its organisation who are competent to authorise the Access Permit Forms.

3.4.4 Each Access Permit Form shall identify the risk assessments, method statements and permits to work which have been raised under the MUDFA Contractor's safety management system.

3.4.5 Each Access Permit Form shall identify any requirements for system interruption or isolation.

3.4.6 The MUDFA Contractor shall identify within each Access Permit Form any special control measures which require to be implemented including:

3.4.6.1 requirements for witnessing system interruptions and/or isolations and subsequent re-energisation;

3.4.6.2 traffic management requirements under Chapter 8 of the Traffic Signs Manual;

- 3.4.6.3 specific time limits on working hours;
 - 3.4.6.4 methods for segregating the Work Site;
 - 3.4.6.5 specific requirements regarding noise and dust;
 - 3.4.6.6 requirements for protection of the works;
 - 3.4.6.7 requirements for removal, obstruction, or disablement of street furniture;
 - 3.4.6.8 requirements for liaison with other parties, such as CEC and SEPA;
 - 3.4.6.9 requirements for compliance with the various plans and documents prepared by the MUDFA Contractor, for example the waste management plan, construction site drainage plan, landscape and habitat management plan, and the archaeological and heritage mitigation plan; and
 - 3.4.6.10 any other requirements expressed in the relevant Work Order.
- 3.4.7 The MUDFA Contractor shall agree with **tie** the "start work date" and "stop work date" for each work activity or group of work activities to be included in each Access Permit.
- 3.4.8 On completion of the work activity or group of work activities, or the "stop work date" (which ever is sooner) the MUDFA Contractor shall return the relevant Access Permit to **tie** for cancellation (for completed work activities) or reauthorisation (for ongoing work activities). The Access Permit shall be reauthorized by **tie** on no more than five occasions.
- 3.4.9 In the event that the work is not completed once the Access Permit Form has been reauthorized for the fifth time, the Access Permit shall be closed and a subsequent Access Permit Form shall be submitted by the MUDFA Contractor.
- 3.4.10 The MUDFA Contractor's authorised persons shall be required to undergo training by **tie** in the operation of the Access Permit system.

3.5 **Permits to Work**

3.5.1 The MUDFA Contractor shall implement a "permit to work" system for the following activities as a minimum:

3.5.1.1 hot works;

3.5.1.2 entry into confined spaces;

3.5.1.3 work on live utilities;

3.5.1.4 access to live facilities; and.

3.5.1.5 works on private land controlled by third parties.

3.5.2 The MUDFA Contractor shall issue a copy of its permit to work procedure to **tie** for approval in accordance with the Review Procedure.

3.5.3 The MUDFA Contractor shall advise **tie** of the competent persons within its organisation who shall be competent to authorise permits to work.

3.6 **Personal Protective Equipment**

3.6.1 The MUDFA Contractor shall provide all necessary personal protective equipment ("**PPE**") for its employees and provide them with all necessary information, instruction and training on its use.

3.6.2 The MUDFA Contractor shall ensure that all persons on the Work Site (including Sub-Contractors and visitors) wear the necessary PPE.

3.6.3 **tie's** specific requirements for PPE with regard to particular tasks are as follows:

3.6.3.1 head protection conforming to BS 5240 or BS EN 397;

3.6.3.2 protective footwear complying with BS EN 345 (safety boots which provide ankle support and contain steel midsoles shall be required for works which are carried out on railway land);

3.6.3.3 yellow high visibility clothing to comply with BS EN 471:1994, Table 1, Class 2 or 3, which shall be worn at all times; the clothing

shall comply with the requirements of Clause 4.2.3(b) in all cases; jackets with sleeves in accordance with Clause 4.2.4 and to Class 3 shall be worn on dual carriageway roads with a speed limit of 50 mph or above, unless operatives stay within the working space at all times; and

3.6.3.4 orange high visibility clothing complying with GO/RT 3279 shall be worn where any works are carried out on railway land.

3.7 **Work Site Completion Certificates**

3.7.1 The MUDFA Contractor shall comply with **tie's** system for certifying the completion of the relevant work activities within each Work Site, which shall require the MUDFA Contractor to complete a completion certificate ("**Work Site Completion Certificate**") for each Work Site that is to be handed back to **tie**.

3.7.2 The Work Site Completion Certificate shall be completed by the MUDFA Contractor to identify and cross reference the quality control records, testing and commissioning records and any other records identified within this Schedule 2 (*Technical Requirements*), together with details of any outstanding works which are required and the timescales for undertaking them.

4. **REPORTING**

4.1 The MUDFA Contractor shall report the following information to **tie** within 24 hours of the event occurring:

4.1.1 details of any accident or incident which requires notification to the Health & Safety Executive (the MUDFA Contractor shall copy Form 2508 to **tie**);

4.1.2 details of any environmental event which requires notification to the Scottish Environmental Protection Agency ("**SEPA**"); and

4.1.3 details of any visit by either the Health & Safety Executive or SEPA, together with details of any report issued or enforcement action that resulted.

4.2 The MUDFA Contractor shall include the following information within its four weekly progress report which is to be provided to **tie** as part of the Construction Services:

4.2.1 an update on any events referred to in paragraphs 4.1.1 to 4.1.3;

4.2.2 details of any near misses;

4.2.3 details of any accident investigation reports raised by the MUDFA Contractor, including details of corrective and preventative actions which have been taken;

4.2.4 the accident incident rate ("**AIR**") and accident frequency rate ("**AFR**") for the MUDFA Works (including details of total hours worked and number of persons employed);

4.2.5 a summary of the monitoring and internal auditing activities undertaken by the MUDFA Contractor in the period, including details of any corrective or preventative actions raised or closed out; and

4.2.6 details of the programme of monitoring and auditing planned for the subsequent four-weekly period.

5. AUDITING AND MONITORING

5.1 The MUDFA Contractor shall be responsible for carrying out, auditing and monitoring of its site establishment and work activities.

5.2 **tie** shall undertake regular auditing and monitoring of the MUDFA Contractor's activities and site establishment and documentation records, and the MUDFA Contractor shall action any findings which are raised by **tie**.

6. NON-CONFORMANCE, COMPLAINTS AND DISCIPLINARY MATTERS

6.1 **tie** shall implement a process for recording and processing breaches by the MUDFA Contractor of the requirements of the Agreement including this Schedule 2 (*Technical Requirements*) and complaints.

6.2 The MUDFA Contractor shall take such steps as are required by **tie** to remedy any such infringement or address any such complaint and the following priority levels for action shall apply:

Level of Urgency	Category of Notification	Required Response Time
1	High urgency. Involves an immediate threat to persons or property or the circumstances otherwise require immediate rectification.	Immediate action required. If response not completed by the MUDFA Contractor within 4 hours or such longer period as tie may in its absolute discretion agree, tie may procure that the relevant work is carried out and the costs of so doing shall be recovered from the MUDFA Contractor.
2	Medium urgency. No immediate threat to persons or property, but circumstances require rectification within 24 hours.	Remedial action requires to be completed within 24 hours or such longer period as tie may in its absolute discretion agree. If the MUDFA Contractor does not complete the required response within 24 hours (or such longer period as may be agreed as stated above), tie may procure that the relevant work is carried out and the costs of so doing shall be recovered from the MUDFA Contractor.
3	Issue requires rectification, but no immediate threat to persons or property and the circumstances do not otherwise require immediate rectification.	Timescales for rectification to be agreed between the MUDFA Contractor and tie . In the event that the MUDFA Contractor does not comply with the agreed timescales, tie may procure that the relevant work is carried out and the costs of so doing shall be recovered from the MUDFA Contractor.

If the MUDFA Contractor fails to take any remedial action required by **tie** pursuant to the table above, **tie** shall be entitled to employ and pay other persons to carry out the same and all costs incurred by **tie** shall be recoverable from the MUDFA Contractor by **tie** and may be deducted by **tie** from any monies due or to become due to the MUDFA Contractor or, alternatively, recoverable from the MUDFA Contractor as a debt.

6.3 Subject to Clauses 12.6 and 16, of the Agreement, **tie** shall implement a process for initiating disciplinary actions which could arise from complaints received in respect

of MUDFA Contractor staff or breach by any member of the MUDFA Contractor's staff in respect of the requirements of Schedule 1 (*Scope of Works and Services*) or this Schedule 2. These comprise:

6.3.1 Black Card: issued for gross misconduct, or the aggregation of two Red Cards or three Yellow Cards - results in employment on the Edinburgh Tram project being terminated for the individuals involved.

6.3.2 Red Card: issued for serious misconduct, or the aggregation of two Yellow Cards.

6.3.3 Yellow Card: issued for misconduct.

6.4 **tie** shall not issue cards frivolously or vexatiously.

7. IDENTIFICATION

7.1 The MUDFA Contractor shall ensure that all site construction staff are easily identifiable to the public by use of photo identity cards, which shall be issued at the **tie** induction.

7.2 The MUDFA Contractor shall ensure that all site construction staff wear the "Edinburgh Tram" branded high visibility waistcoat (unless the risk assessment identifies that it is not safe to do so). The high visibility waistcoats shall be supplied free of charge by **tie** and shall be returned to **tie** at the end of the MUDFA Contractor's involvement on the project.

7.3 The MUDFA Contractor shall ensure that all site construction staff identify their employer by means of their company logo on their safety helmet.

8. HOURS OF WORKING

8.1 Normal maximum limits of permissible hours of working for the MUDFA Works shall be:

Monday – Friday 0700 – 1900 hours.

Saturday 0800 - 1300 hours

8.2 These hours of work shall not apply to equipment which is required to operate continuously (e.g. for safety or environmental reasons) or to work undertaken within fully enclosed areas such as buildings.

8.3 **Work Outside Normal Hours**

8.3.1 In certain circumstances work outwith these hours may be undertaken with the prior approval of **tie** and CEC. These circumstances may include:-

8.3.1.1 Sunday and evening/night working on public roads and in the vicinity of the railway network, where such working is required to minimise disruption to other traffic; or

8.3.1.2 where, through consultation with local residents and businesses adjacent to the proposed works to be undertaken outwith the normal hours of working, it is deemed by the MUDFA Contractor acting reasonably and having due and proper regard to the said consultation to be less disruptive to those businesses and residents by having the MUDFA Contractor working extended hours outwith the normal hours of working, or

8.3.1.3 where works are taking place in areas where there are no residents adjacent to the proposed works.

8.3.2 Application for prior approval must be made by the MUDFA Contractor at least two weeks in advance.

8.4 Where Sunday or evening and night working has the potential to disturb nearby land users and occupiers, the MUDFA Contractor shall notify such users and occupiers seven days in advance with a description of the work to be carried out, measures which will be taken to control noise or other disturbance, and proposed hours of working.

8.5 No works shall be undertaken between Haymarket at Magdala Crescent to Leith Walk Junction of London Road from and including the following dates:

Festival 06th August 2006 until 03rd September 2006;

Festival 05th August 2007 until 02nd September 2007;

Christmas 03rd December 2006 until 02nd January 2007; and

Christmas 02nd December 2007 until 02nd January 2008.

9. SITE ARRANGEMENTS

9.1 Site Housekeeping

9.1.1 A 'good housekeeping' policy shall be applied by the MUDFA Contractor at all times; this shall include, but not necessarily be limited to, the following requirements:

9.1.1.1 all working areas shall be kept in a clean and tidy condition;

9.1.1.2 all working areas shall be a no-smoking area; specific areas within the Site shall be designated as smoking areas and shall be equipped with containers for smoking waste; these shall not be located at the boundary of the Site and adjacent to neighbouring land;

9.1.1.3 open fires shall be prohibited at all times;

9.1.1.4 all necessary measures shall be taken to minimise the risk of fire and the MUDFA Contractor shall comply with the requirements of the local fire authority;

9.1.1.5 radios (other than two-way radios used for the purposes of communication related to the works) and other forms of audio equipment shall not be operated on the Site;

9.1.1.6 any waste susceptible to spreading by wind or liable to cause litter shall be stored in enclosed containers;

9.1.1.7 rubbish shall be removed at frequent intervals and the Site kept clean and tidy;

9.1.1.8 hoardings shall be frequently inspected, repaired and re-painted as necessary;

9.1.1.9 eating and drinking shall only be permitted within the MUDFA Contractor's designated welfare area;

9.1.1.10 adequate toilet facilities shall be provided for all Site staff;

9.1.1.11 food waste shall be removed frequently;

9.1.1.12 the MUDFA Contractor's personnel (including any Sub-Contractors) shall be required to conform to a reasonable dress code;

9.1.1.13 any behaviour that is lewd or likely to cause offence shall not be permitted; and

9.1.1.14 wheel washing areas shall be brushed clean frequently.

9.1.2 The MUDFA Contractor shall inspect all working areas at least weekly and shall provide a four weekly written report on compliance with paragraph 9.1.1 above. **tie, tie's** Representative or any other party authority by either of them may carry out inspections of the Site at any time without prior notice of time and place of the inspections. Access to all areas of the MUDFA Works shall be given to visiting inspectors and the MUDFA Contractor shall give inspectors all reasonable assistance during their Site inspection.

9.1.3 The MUDFA Contractor shall register the project with the Considerate Constructors Scheme.

9.2 **Welfare**

9.2.1 The MUDFA Contractor shall be responsible for ensuring that adequate welfare facilities are provided; adequate facilities shall comprise:

9.2.1.1 sufficient toilet facilities for all staff at readily accessible locations;

9.2.1.2 facilities for changing, storing and drying clothes, for heating water and for washing and drinking (the latter must have seating for each person and wipe-clean mess table tops);

9.2.1.3 washing facilities near every toilet facility and changing room; the washing facilities shall include a supply of hot and cold or warm water, soap or cleaning agent and towels or hot air drier;

9.2.1.4 clean, wholesome drinking water, clearly marked as such;

9.2.1.5 a means of heating food; and

9.2.1.6 rest facilities.

9.2.2 The MUDFA Contractor shall keep all welfare facilities clean and shall not use them for the storage of materials, plant and other working equipment.

9.2.3 The MUDFA Contractor shall provide suitable and sufficient fire fighting equipment for all on-site accommodation.

9.2.4 Where there is the possibility of female employees or visitors being present on the Site, the MUDFA Contractor shall provide separate toilet, washing and changing facilities.

9.3 **Fencing and Hoardings**

9.3.1 The MUDFA Contractor shall ensure that all working areas are sufficiently and adequately fenced to prevent the public and animals from straying on to the working area; hoardings shall be provided to suit the individual location by carrying out an appropriate risk assessment, but may be:

9.3.1.1 Adjacent to a pedestrian route:

- (a) a modular wire mesh fence a minimum of 1.8 metres in height, where appropriate for minimum security needs; or
- (b) a 2.4 m minimum height, plywood faced, timber framed boundary hoarding, of a surface density of not less than 7kg/m^2 or other hoarding providing equivalent security and noise attenuation, in the vicinity of noise sensitive neighbours; or
- (c) in locations identified by **tie** a proprietary steel panelled hoarding system a minimum of 2.4 metres in height.
- (d) a 2.4 m minimum height, plywood faced, timber framed boundary hoarding, of a surface density of not less than 7kg/m^2 together with a covered walkway over a pedestrian route.

9.3.1.2 Adjacent to a live road carriageway:

- (a) as for a pedestrian route, but in conjunction with a vehicle restraint system which complies with containment level T1 and T2 of BS EN 1317 – 2: 1998, where determined by the risk assessment.

9.3.1.3 In areas not adjacent to a live carriageway or pedestrian route:

- (a) as for a pedestrian route; and
- (b) a post and wire fence 1.2 m in height erected on the line of the LOD.

9.3.1.4 other designs, where a particular level of risk mitigation appearance or acoustic rating is considered to be required and is agreed with **tie** and CEC.

9.3.1.5 where the works to be undertaken are of a minor nature, and subject to the approval of **tie**, barriers comprising post and planks or similar proprietary systems can be used.

9.3.2 All fencing and hoardings shall comply with the requirements of chapter 8 of the Traffic Sign Manual.

9.3.3 All access and egress to worksites shall be via designated positions within the fencing and hoardings, which shall remain closed and secured when not in use.

9.3.4 All fencing and hoardings that create poorly lit pedestrian routes shall have appropriate lighting fitted by the MUDFA Contractor, and these shall be illuminated at all times when the adjacent street lighting is lit.

9.3.5 The MUDFA Contractor shall ensure that the location and design of Site boundaries, hoarding and temporary structures on the public road shall permit adequate visibility at junctions and proper forward visibility along the roads in accordance with the National Roads Directorate advice notes and the requirements of CEC.

9.3.6 The MUDFA Contractor shall ensure that where hoardings are provided, they are painted on the side facing away from the working area in a colour

and style to be approved by **tie** and CEC, and that the public side of the hoarding carries signs which identify the project and give appropriate contact information for the MUDFA Contractor.

- 9.3.7 The MUDFA Contractor shall ensure that where fencing is provided the fence panels are covered by material that complies with the requirements of Loss Prevention Standard LPS 1215 *Flammability Requirements and Tests for LPCB Approval of Scaffolding Materials*. The material shall be printed in a colour and style to be approved by **tie** and CEC, and carries signs which identify the project.
- 9.3.8 All hoardings shall be maintained by the MUDFA Contractor in a neat and tidy condition at all times 24 hours 7 days a week.
- 9.3.9 The MUDFA Contractor shall be expressly prohibited from displaying or allowing to be displayed any advertisement or notice including illicit bill or fly posting on the hoardings. The MUDFA Contractor shall ensure that all graffiti, fly posting or defacement to the hoardings is removed and made good or obscured within 24 hours.
- 9.3.10 An information board shall be provided by the MUDFA Contractor at each working area detailing information on the work programme and estimated duration of the MUDFA Works at that working area, together with the location of the information centre, the web address and a 24-hour telephone number for use by members of the public who wish to lodge complaints or comments or obtain additional information.
- 9.3.11 All fencing and hoarding shall be removed as soon as reasonably practicable after the completion of any part of the MUDFA Works.

9.4 **Lighting and Visual Intrusion**

- 9.4.1 The MUDFA Contractor shall site construction buildings, equipment and lighting so as to minimise visual intrusion and light spillage at nearby residential properties, in so far as is consistent with the safe and efficient operation of each Work Site. Lighting shall be removed as soon as is consistent with the safe and efficient operation of each Work Site.

where used, shall be closed and locked when there is no Site activity and Site security measures shall be implemented.

9.6.2 Site security cameras, where used, shall be placed in locations which will not unduly infringe upon the privacy of local residents.

9.7 **Living Accommodation**

9.7.1 No living accommodation shall be provided by the MUDFA Contractor within any construction working area. Mess rooms, locker rooms, toilets and showers shall be permitted at Work Sites.

9.8 **Clearance of Site on Completion**

9.8.1 The MUDFA Contractor shall clear and clean all Apparatus, working areas and accesses as work proceeds and when no longer required for the carrying out of the MUDFA Works.

9.8.2 All surplus soil and materials, rubbish, Temporary Works including temporary roads and hardstandings, MUDFA Contractor's Equipment, sheds, offices and temporary fencing shall be removed, post holes filled and the surface of the ground restored as near as practicable to its original condition, or to such condition as has previously been agreed with **tie** and CEC in accordance with the relevant Work Order and/or Schedule 3 (*Specification*) (as appropriate).

9.9 **Pest Control**

9.9.1 The MUDFA Contractor shall ensure that the risk of infestation by pests or vermin is minimised by adequate arrangements for the disposal of food waste or other material attractive to pests. If infestation occurs, the MUDFA Contractor shall take such action to deal with it as required by **tie** and CEC.

10. **REQUIREMENTS RELATING TO WORKS AFFECTING EDINBURGH AIRPORT**

10.1 The MUDFA Contractor shall comply with the requirements of Edinburgh Airport Limited in relation to aerodrome safeguarding, including those requirements included within the Town and Country Planning (Safeguarded Aerodromes, Technical Sites

and Military Explosives Storage Areas) (Scotland) Direction 2003 (SEDD Circular 2/2003).

10.2 The MUDFA Contractor shall have regard to, and comply (where relevant) with all BAA and CAA guidelines, including, (but not necessarily limited to):

10.2.1 CAP 168 Licensing of Aerodromes.

10.2.2 CAP 680 Aerodrome Bird Control.

10.2.3 CAA Safeguarding of Aerodromes Advice Note 1 (Safeguarding – An Overview).

10.2.4 CAA Safeguarding of Aerodromes Advice Note 2 (Lighting near Aerodromes).

10.2.5 CAA Safeguarding of Aerodromes Advice Note 4 (Cranes and Other Construction Issues).

10.2.6 BAA Standard Conditions for Aerodrome Safeguarding.

10.3 The MUDFA Contractor shall prepare for approval by **tie** and Edinburgh Airport Limited a "Construction Management Strategy" as defined within CAA Safeguarding of Aerodromes Advice Note 4 (Cranes and Other Construction Issues). The Construction Management Strategy shall address as a minimum the following issues:

10.3.1 use of cranes or other tall construction equipment;

10.3.2 control of activities likely to produce dust or smoke clouds

10.3.3 the design of temporary lighting to avoid distracting pilots (see Advice Note 2);

10.3.4 storage of materials, particularly compliance with height limits;

10.3.5 control and disposal of waste, to prevent attraction of birds; and

10.3.6 site restoration, to prevent attraction of birds.

11. REQUIREMENTS RELATING TO WORKS AFFECTING THE RAILWAY

- 11.1 The MUDFA Contractor shall comply with the requirements of Network Rail in relation to railway safeguarding.
- 11.2 The MUDFA Contractor shall comply with all Network Rail standards and guidelines, including but not limited to "*Requirements for Constructional Work On or Near Railway Operational Land*" and "*Health and Safety Management of Third Party Works (RT/LS/P/043)*".

12. HEALTH & SAFETY REQUIREMENTS

12.1 Safety Signage

The MUDFA Contractor shall be responsible for the provision of all safety signage required for the work activities being undertaken. Safety signage shall comply with the Health and Safety (Safety Signs and Signals) Regulations 1996.

12.2 Hazardous Substances

12.2.1 The MUDFA Contractor shall maintain a register of safety data sheets for all materials and substances used.

12.2.2 The MUDFA Contractor shall be responsible for undertaking "COSHH" assessments for materials and substances used or with which contact will be made on the Site.

12.2.3 The MUDFA Contractor shall liaise with **tie** regarding proposals for storage of hazardous substances in open air, in buildings, within the workplace and the decanting, disposal of empty containers, tanks and cylinders.

12.3 Electricity

12.3.1 The MUDFA Contractor shall use electrical tools and equipment which operate at a voltage no greater than 110V. Where there is a requirement to operate tools and equipment using a voltage greater than 110V, the approval of **tie** shall be obtained in writing.

12.3.2 Electrical tools shall be double insulated and used in conjunction with a RCD.

- 12.3.3 Tools shall be connected to a 240V supply via a portable 110V centre tapped transformer.
- 12.3.4 The lead between the 240V supply and the transformer shall be as short as is reasonably possible.
- 12.3.5 All temporary electrical systems shall possess a current inspection certificate.
- 12.3.6 All tools shall have passed an electrical safety test and shall be identified with a label which states the unique identification, the test date, the next test date and the organisation which carried out the electrical safety test.

12.4 Provision and Use of Work Equipment

- 12.4.1 The MUDFA Contractor shall be responsible for ensuring the inspection of all work equipment. Records of inspections shall be retained at the Site.
- 12.4.2 Work equipment shall only be used by authorised personnel, who have received appropriate training and certification.

12.5 Lifting Operations and Lifting Equipment

- 12.5.1 The MUDFA Contractor shall be responsible for ensuring that all lifting equipment is accompanied by current test and examination certificates.
- 12.5.2 Safe working loads shall be shown on all lifting equipment.
- 12.5.3 Lifting equipment and lifting operations shall only be used by authorised personnel, who have received appropriate training and certification.

12.6 Height Gauges for Low Structures

- 12.6.1 A height gauge in the form of a rigid “goal post” type structure shall be erected at:
 - 12.6.1.1 At all egress points from the worksites. The height that the cross bar is set to shall be dependent upon the minimum height of any obstruction that a vehicle will encounter on public or third party land.
 - 12.6.1.2 At all access points to the worksites or in the proximity of an on site obstruction. The height to which the crossbar requires to be set shall

be subject to review during the contract to ensure that it takes cognisance of the ongoing construction works.

12.6.1.3 The height gauge shall comprise a form that shall alert the driver of contact with the cross bar and shall be located in a position that shall enable the driver to take avoiding action prior to contacting any obstruction.

12.7 Overhead Power Lines

12.7.1 Where plant and equipment is working in the vicinity of an overhead power line, the distance between the plant and equipment and the overhead line should be at least:

12.7.1.1 15 m (plus the length of the jib) if the lines are suspended from steel towers; or

12.7.1.2 29 m (plus the length of the jib) if the lines are supported on wooden poles.

12.7.2 In cases where approach is likely, stout, distinctive barriers should be erected at ground level to prevent access. Where work is to take place close to overhead lines, detailed precautions should be discussed with the owner of the overhead lines – however, the responsibility for ensuring that precautions are adequate remains with the MUDFA Contractor, not with the owner of the power lines.

12.7.3 In addition to the specific precautions required when working in the vicinity of overhead power lines, the following shall be undertaken:

12.7.3.1 barriers shall be erected at least 6 m away, to prevent inadvertent approach by other site vehicles.

12.7.3.2 crossing points shall be clearly marked beneath the lines by means of a rigid “goal post” structure at a height specified by the electrical supplier.

12.7.3.3 storage of materials shall be prohibited in the area between the overhead lines and the ground-level barriers.

13. FIRE PREVENTION

- 13.1 The requirements of the document "*Fire Prevention on Construction Sites: The Joint Code of Practice on the Protection from Fire of Construction Sites and Buildings Undergoing Renovation* (published by the Construction Confederation and the Fire Protection Association) shall apply to the MUDFA Works.
- 13.2 All temporary protective coverings shall comply with the requirements of the Loss Prevention Standard LPS 1207 'Fire Requirements for Protective Covering Materials'.
- 13.3 All scaffold cladding materials shall comply with the requirements of the Loss Prevention Standard LPS 1215 'Flammability Requirements for Scaffold Cladding Materials'.
- 13.4 The MUDFA Contractor shall, as appropriate to the work activities, appoint "a fire marshal" who shall be responsible for day to day fire safety.
- 13.5 A permit to work shall be implemented for all "hot works".
- 13.6 The use of halogen lighting shall be prohibited.

14. FIRST AID

- 14.1 the MUDFA Contractor shall be responsible for providing first aid provision for its personnel (including any Sub-Contractors) in accordance with the Health and Safety (First Aid) Regulations ("Regulations") 1981. This shall include the provision of:
 - 14.1.1 a first aid box, the size of which shall be commensurate with the number of workers on Site; and
 - 14.1.2 the required number of first aiders or appointed persons required by the Regulations.

15. INSPECTIONS

- 15.1 The MUDFA Contractor shall be responsible for undertaking the statutory inspections required in terms of the Construction (Health, Safety and Welfare) Regulations 1996 that relate to the MUDFA Works being carried out. The records of the inspections shall be retained on the Site.

16. ROADS AND FOOTPATHS, CYCLEWAYS AND BRIDLEWAYS

16.1 General

16.1.1 The MUDFA Contractor shall submit to **tie** and the SDS Provider a statement setting out the proposed measures (including specified traffic routes) to be taken with respect to traffic and road safety for the duration of the MUDFA Works, to enable the development of the Temporary Traffic Regulation Orders ("TTROs") and equivalent of such orders as are applicable to third parties for example Edinburgh Airport Limited, for approval before the MUDFA Works commence. The MUDFA Contractor shall circulate the approved statement to all bodies identified by **tie** and CEC and any other bodies affected by the MUDFA Works.

16.1.2 The measures to be taken with respect to traffic and road safety shall include, but not necessarily be limited to:

16.1.2.1 use of TTROs; the MUDFA Contractor shall consult with the SDS Provider, **tie**, CEC and other third parties on the arrangements for agreeing and implementing TTROs to facilitate road closures and the like; the use of TTROs shall take into account the requirement for, and availability of, suitable alternative routes;

16.1.2.2 use of temporary signing and lining where required by **tie** and CEC to identify places where construction is taking place;

16.1.2.3 use of temporary signing to restrict vehicle types and sizes and define routes for construction traffic;

16.1.2.4 use of appropriate temporary signing and lighting wherever works are in progress to ensure the safety of all road users; and

16.1.2.5 preparation and implementation of a programme agreed by the SDS Provider with **tie** and CEC for road closures and temporary traffic signal arrangements.

16.2 Temporary Road Closures And Diversions

- 16.2.1 The MUDFA Contractor shall assist the SDS Provider to finalise the arrangements for required closures and diversions of specified highways, footpaths and cycle ways with **tie** and CEC, BAA or any private landowner, to suit its Construction Programme.
- 16.2.2 Before breaking up, closing or otherwise interfering with any street or footpath to which the public has access, the MUDFA Contractor shall make such arrangements with **tie** and CEC as may be reasonably necessary to cause as little interference with the traffic in that street or footpath during the construction works as shall be reasonably practicable.
- 16.2.3 Temporary road closures which result in the diversion of bus routes shall be agreed by the SDS Provider with the relevant bus operators who will in turn notify the Traffic Commissioner.
- 16.2.4 Pedestrian access to properties shall be maintained at all times where practicable, unless otherwise agreed with **tie** and CEC and the owners and tenants of affected properties. Access to and from public facilities shall be maintained at all times unless otherwise agreed with the relevant administering bodies.
- 16.2.5 Wherever the MUDFA Works interfere with the existing public or private roads or other ways over which there is a public or private right of way for any traffic, the MUDFA Contractor shall construct diversion ways as necessary. The standard of construction and lighting shall be suitable in all respects for the class or classes of traffic using the existing ways and the widths of the diversions shall not be less than that of the existing way unless otherwise agreed with **tie** and CEC or the owner of the private road.
- 16.2.6 Diversion routes shall be constructed in advance of any interference with the existing ways, shall be kept as short as reasonably practicable and shall be maintained by the MUDFA Contractor to provide adequately for the traffic flows. All diversion routes shall be removed and the road returned to **tie** and CEC as soon as is reasonably practical after completion of the MUDFA Works. Liaison shall be undertaken with **tie** and CEC regarding any special

events such as the Edinburgh Festival, Christmas, New Year, sporting events and filming which might interact with the diversions.

16.2.7 Adequate horizontal clearance of 0.6 metres minimum shall be provided from the kerb line, to avoid fouling by vehicles. The minimum headroom beneath any projection over the road shall be 5.3 metres.

16.3 **Parking Provision for Construction Traffic**

16.3.1 Areas and locations of parking provision for site and construction traffic shall be agreed by the MUDFA Contractor with **tie** and CEC prior to the commencement of MUDFA Works.

16.3.2 No daytime or overnight parking of site or construction vehicles outside any construction compounds or work sites shall be allowed except where the delivery or removal of materials is taking place at that location or the vehicle is required by the MUDFA Contractor for essential construction activity at that location at that time, in either case with prior agreement with **tie** and CEC, as required under paragraph 8.3 above.

16.4 **Pedestrian Routes, Cycle Routes and Bridleways**

16.4.1 The MUDFA Contractor shall ensure that all existing pedestrian routes, cycle routes and bridleways are maintained throughout the MUDFA Works unless otherwise agreed with **tie** and CEC. Any temporary replacement footway or cycleway shall meet the following requirements:

16.4.1.1 all temporary and diverted footways, which replace footways which are currently accessible to wheelchairs and pushchairs, shall continue to be usable by such users where reasonably practicable and take into account DDA access requirements;

16.4.1.2 tactile paving shall be used where present on existing pedestrian facilities unless otherwise agreed with **tie** and CEC;

16.4.1.3 any temporary footways and cycle ways shall have uniform surfaces; there shall be no steps and any longitudinal gradients shall be suitable for the prevailing conditions, preferably 1 in 20

and no greater than 1 in 12; cross-falls shall be suitable for disposal of surface water run off, but ideally shall not exceed 1 in 30;

- 16.4.1.4 ramps shall be provided at all junctions of footways and cycle ways with carriageways; gradients shall be appropriate to the circumstances, not exceed 1 in 12, and the base of the ramps shall be flush with the carriageway; all temporary footways and cycle way ramps shall be surfaced in non-slip material and kept free from mud and debris; the MUDFA Contractor shall ensure that there is no ponding at any junction;
- 16.4.1.5 existing footway and cycle way widths shall be maintained where practicable; footway and cycle way widths shall not be reduced without the prior agreement and approval of CEC;
- 16.4.1.6 clear signing and protection measures shall be provided at all times for each pedestrian and cycle route or bridleway affected by the MUDFA Works, in accordance with Chapter 8 of the Traffic Signs Regulations and General Directions 1981 and relevant safety legislation; the MUDFA Contractor shall liaise and agree the signing requirements of all pedestrian and cycle routes affected by the MUDFA Works with **tie** and CEC, and shall provide any additional signage and/or protection measures required and agreed with **tie** and CEC; and
- 16.4.1.7 headroom clearance over footways and cycle ways shall be appropriate for the circumstances and a minimum of 2.3 metres; a horizontal clearance of 0.6 metres shall be provided from the kerb line, where practicable, for any hoarding to avoid fouling by vehicles; the minimum headroom beneath any projection over the highway shall be 5.3 metres, but will be higher for abnormal load routes; where a path is a designated bridleway, headway clearance shall be appropriate for the circumstances and a minimum of 3.6 metres; all pedestrian routes diverted onto the carriageway shall be clearly defined by continuous barriers, constructed to the reasonable requirements of **tie** and CEC.

16.5 Maintenance and Repair of the Road

- 16.5.1 The MUDFA Contractor shall carry out a pre-construction inspection and take photographs of the public roads, footpaths and cycle ways in the vicinity of the Site in conjunction with **tie** and CEC. The MUDFA Contractor shall produce a report of the results of the joint inspection. The report shall establish the general road conditions within and in the vicinity of the Site and the level of reinstatement likely to be required in order to comply with the requirements of the relevant Work Order and Schedule 3 (*Specification*), as appropriate. The report shall be agreed and signed by both the MUDFA Contractor, **tie** and CEC as appropriate.
- 16.5.2 The MUDFA Contractor shall take every reasonable precaution to prevent its operations from unnecessarily damaging the roads and footpaths within the Site and in the vicinity of the MUDFA Works.
- 16.5.3 The MUDFA Contractor shall carry out all maintenance works as are necessary to maintain the roads and footpaths affected by the MUDFA Works in a safe and serviceable condition to the reasonable satisfaction of CEC and **tie**, but only insofar as the roads and footpaths require to be maintained pursuant to this Agreement.
- 16.5.4 The MUDFA Contractor shall be responsible for ensuring that the reinstatement of all openings in the roads comply with the requirements of the RAUC (S) Specification for the Reinstatement of Openings in Roads.

16.6 Existing Street Furniture

- 16.6.1 No street furniture or other features within the vicinity of the Site and the MUDFA Works, but outwith the area covered by the Tram Legislation shall be unnecessarily disturbed or altered by the MUDFA Works. Any damage to street furniture consequent upon construction activities connected with the MUDFA Works shall be reported to **tie** and the appropriate owner or authority (unless the appropriate owner cannot be identified) immediately on discovery of the damage. Any damage shall be replaced or made good as soon as practicably possible and to the reasonable satisfaction of the owner of the street furniture or other feature.

16.6.2 Any street furniture or other obstructions outside the area to be occupied by the MUDFA Contractor but which are required to be moved in order to gain access to the Site shall, subject to the prior consent of the owner thereof, be removed and reinstated or replaced as appropriate, on completion of the MUDFA Works. Any costs associated therewith shall be borne by the MUDFA Contractor, including the costs of reinstatement or replacement.

16.7 **Vehicle Movements and Access to the Site**

16.7.1 The MUDFA Contractor and its Sub-Contractors and suppliers moving loads, construction plant, materials and spoil (including vehicles used for carrying such when empty) shall limit the use of the public roads for such purposes as far as reasonably practicable.

16.7.2 All access routes shall be agreed with **tie** and CEC prior to the commencement of the relevant works.

16.7.3 Vehicles arriving or leaving the Site shall do so during the normal working hours as specified in paragraph 8.1 above, unless otherwise agreed with **tie** and CEC. Access (which is deemed to include both the route and entrance to any Work Site) by lorries shall be as agreed with **tie**, CEC and the Lothian and Borders Police. Access to and egress from the Site shall be carried out by initiating a left turn wherever reasonably practicable.

16.7.4 All vehicles operating on the Site shall be fitted with roof mounted yellow flashing beacons.

16.7.5 The MUDFA Contractor shall take all reasonable measures to ensure that delivery vehicles do not remain stationary on the road unnecessarily prior to entering the Site. In exceptional circumstances, for example where the Site is very constrained, it may be necessary to have the potential for a limited number of vehicles to stand on the road. The location of such standing areas their size and the duration of any standing periods shall be subject to prior agreement with **tie**, CEC and the Lothian and Borders Police.

16.7.6 The MUDFA Contractor shall ascertain and comply with any restrictions in respect of abnormal load routes as they may affect access to the Site.

16.8 **Mud on Roads**

16.8.1 The MUDFA Contractor shall take strict measures to minimise the spillage of mud and loose materials on roads arising from all works and ensure that the roads are safe at all times. These shall include, but not necessarily be limited to:

16.8.1.1 the provision of easily cleaned hard standings for vehicles entering, parking and leaving the Site or construction compound;

16.8.1.2 the provision of wheel washing facilities at construction compounds and construction sites, including, where practicable, mechanical wheel spinners, adequate provision for drainage via settlement tanks and regular maintenance of settlement tanks;

16.8.1.3 where mechanical wheel wash facilities are not practicable at construction sites, the use of manual techniques to ensure that the wheels of vehicles are clean prior to them leaving the construction site;

16.8.1.4 the use of mechanical road sweepers and surface flushing apparatus to clean the hard standing and to remove any mud or debris deposited by site vehicles on roads, footpaths, and in gullies or drains in the vicinity of the Site; the road sweepers or other equipment shall be readily available whenever the need for cleaning arises;

16.8.1.5 the loading and sheeting of vehicles are in such a manner as to prevent material falling off during their journey;

16.8.1.6 compliance with the requirements regarding the control of dust outlined in paragraph 19 below; and

16.8.1.7 compliance with the requirements regarding the control of waste water, mud, debris from wheel washing outlined in paragraph 21 below.

16.9 **Provision, Erection and Maintenance of Traffic Safety and Control (Traffic Safety Measures)**

16.9.1 The MUDFA Contractor shall provide, erect and maintain such traffic signs, road markings, lamps, barriers and traffic control signals and such other

measures as may be necessitated by the construction of the MUDFA Works in accordance with the requirements of the Agreement and to the approval of **tie** and CEC. The MUDFA Contractor shall not commence any work which affects the public road until all traffic safety measures necessitated by the work are fully operational.

- 16.9.2 The MUDFA Contractor shall keep clean and legible at all times all traffic signs, road markings, lamps, barriers and traffic control signals and shall position, replace, reposition, cover or remove them as required by the progress of the MUDFA Works and to the reasonable requirements of **tie** and CEC.
- 16.9.3 The MUDFA Contractor shall ensure that all barriers, footpath space and temporary footpaths (including the requirement for kerb ramps where use has to be made of the carriageway) shall comply with the requirements of the document *Inclusive Mobility A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure* issued by the Mobility and Inclusion Unit of the Department for Transport.
- 16.9.4 So far as practicable, all power to temporary traffic signals and lighting shall be taken by the MUDFA Contractor from mains supplies rather than from portable generators. Where portable generators are used all reasonable measures will be taken to minimise noise and pollution from such generators.

16.10 Implementation of the Closure of Roads and Access to Frontages

- 16.10.1 The MUDFA Contractor shall not close any roads or private accesses until immediately before the area is required for construction in accordance with the relevant Work Order and the Construction Programme. The construction of the MUDFA Works shall follow in the area of a temporary closure expeditiously and shall be carried out efficiently and in a continuous manner to ensure that all temporary closures are re-opened as quickly as possible.
- 16.10.2 The MUDFA Contractor shall, in carrying out the MUDFA Works, take all reasonable precautions to prevent or reduce any disturbance or inconvenience to the owners, tenants or occupiers of adjacent properties, and to the public generally. The owners, tenants or occupiers of affected

properties shall be informed of the works to be undertaken, their planned duration, road and access closures and alternative access routes (where required) in writing and by locally posted public notices at least one calendar month prior to work starting.

16.10.3 The MUDFA Contractor shall render all necessary assistance to occupiers of premises affected by the MUDFA Works so as to enable them to accept and send out deliveries to and from their premises during their normal working hours.

16.11 Access for Emergency Vehicles

16.11.1 The routes proposed by the MUDFA Contractor for emergency service vehicles and personnel to gain access to the Work Sites, the construction corridor and neighbouring sites along the route shall be agreed by the SDS Provider with the emergency services and **tie** and CEC prior to the start of construction. The MUDFA Contractor shall provide the necessary assistance to the SDS Provider to enable these agreements to be reached.

17. NOISE

17.1 Noise Control

17.1.1 The MUDFA Contractor to take all practicable measures to minimise nuisance from noise. The noise limits specified in this paragraph 17.1 or which may be otherwise agreed with CEC shall not be regarded as a licence to make noise up to the stated limit.

17.1.2 Subject to the specific requirements of CEC and other affected third parties the following minimum requirements shall be met:

17.1.2.1 during normal working hours, as defined in paragraph 8.1 above the maximum noise levels measured 1 metre from any occupied dwelling or other building used for residential purposes, generated by construction plant and equipment shall not exceed the following limit:

Monday to Friday (inc.) 0700-1900 hours $L_{Aeq\ 12\ hour}$ 75 dB; and
Saturday 0800 - 1300 hours $L_{Aeq\ 5\ hour}$ 75 dB

17.1.2.2 outside normal working hours, the following limits shall apply:

(a)	Period	Hours	Limit
	Monday to Friday (inc.)	1900-2200	$L_{Aeq\ 3\ \text{hours}}$ 65 dB
	Saturday	1300-2200	$L_{Aeq\ 9\ \text{hours}}$ 65 dB
	Sunday & Bank Holidays	0800-2000	$L_{Aeq\ 12\ \text{hours}}$ 65 dB

17.1.2.3 the default noise limit for any night time (2200 (2000 on Sundays and Bank Holidays) to 0700 hours (0800 on Saturdays, Sundays and Bank Holidays)) construction work shall be $L_{Aeq\ 1\ \text{hour}}$ 55dB at residential buildings; higher noise levels may be permitted where ambient noise levels are higher.

17.1.2.4 the maximum noise levels measured 1 metre from any school, college or other teaching facility resulting from construction work shall not exceed the following limits:

At any time when occupied $L_{Aeq\ 1\ \text{hour}}$ 65 dB

17.1.2.5 the maximum noise level measured 1 metre from any office building or other building used for office purposes during normal working hours shall be as defined in paragraph 17.1.2.1 above.

17.1.3 In order to ensure that the best practicable means are used to meet the levels set out above, a programme of on-site monitoring by a suitably qualified practitioner shall be agreed between the MUDFA Contractor, **tie** and CEC. This monitoring programme shall include the location and frequency of readings, and shall define to whom the results shall be made available. Monitoring shall be undertaken by the MUDFA Contractor at locations identified in the Environmental Statements as those where mitigation measures may be necessary to avoid significant noise disturbance.

17.1.4 In exceptionally difficult circumstances, essential work causing noise above these limits may be permitted with the prior approval of **tie** and CEC. Where not included within any Work Order Proposals, application for prior approval must be made at least two weeks in advance of the relevant works

commencing, and shall be fully justified and kept to the minimum necessary. Conditions may be attached to any permission for such works.

17.1.5 In the event that measurements indicate noise has exceeded the limits in paragraph 17.1.2 above of this clause, the MUDFA Contractor shall stop the operation in a safe manner and take all practicable measures to prevent recurrence. If this does not enable the limits to be met, exceptional permission must be applied for under the terms of paragraph 17.1.4 above.

17.1.6 Without prejudice to the other requirements of this paragraph 17, the MUDFA Contractor shall comply with the recommendations set out in BS 5228, '*Noise Control on Construction and Open Sites*'; insofar as these are reasonably practicable and applicable to the MUDFA Works, and in particular with the following requirements:

17.1.6.1 all vehicles and mechanical plant used for the purpose of the work shall be fitted with effective exhaust silencers and shall be maintained in good and efficient working order;

17.1.6.2 all compressors and generators shall be 'sound reduced' models fitted with properly lined and sealed acoustic covers, which shall be kept closed whenever the machines are in use, and all pneumatic percussive tools shall be fitted with mufflers or silencers of the type recommended by the manufacturers;

17.1.6.3 all machines in intermittent use shall be shut down in the intervening periods between work or throttled down to a minimum; noise emitting equipment which is required to run continuously shall be housed in a suitable acoustic enclosure (see BS5228 Part 1:1997, Figures B.1, B.2 and B.3 (or later issue));

17.1.6.4 stationary equipment with significant noise output shall be sited away from sensitive site boundaries as far as is practicable;

17.1.6.5 temporary noise barriers shall be used to reduce noise levels where appropriate and practicable; barriers shall be located as close to the plant as possible, and shall have a mass per unit area of at least 7kg/m^2 ;

17.1.6.6 no deliveries shall arrive at the Site before 0700 hours;

17.1.6.7 the engines of all parked vehicles or vehicles waiting to enter any work area shall be switched off within two minutes of arrival; and

17.1.6.8 work compounds shall be laid out so that accesses and loading areas are located as far away from sensitive neighbours as practicably possible and so that temporary structures screen noisy areas where practicable.

17.1.7 Without prejudice to the requirements of this paragraph 17 set out above, the MUDFA Contractor shall comply with the City of Edinburgh Department of Environmental and Consumer Service's document *Construction Site Noise: A Guide for Contractors*, August 2000 (or current issue, if subsequent amendments have been issued), and shall liaise with that department in accordance with the requirements therein.

17.2 **Communications Regarding Noise**

17.2.1 The MUDFA Contractor shall give seven days notice to local residents who may be adversely affected by noise from the proposed programme of Construction Works, providing a description of the work to be carried out, measures that will be taken to control noise or other disturbance, and the proposed hours of working.

17.2.2 The MUDFA Contractor shall provide **tie** and any other party requested by **tie** with a list of contacts who will be responsible for investigating and resolving noise issues during the Construction Phase.

18. **VIBRATION**

18.1 **Vibration Control**

18.1.1 Subject to the specific requirements of **tie** and CEC, the following minimum requirements shall be met:

18.1.1.1 to protect residents and users of buildings from nuisance and harm the MUDFA Contractor shall, as far as practicable, not exceed the

Vibration Dose Values specified in BS6472:1992 as resulting in a 'low probability of adverse comment'; and

- 18.1.1.2 to protect buildings and other structures from physical damage, peak particle velocity levels shall not exceed 5mm/sec except for particularly sensitive buildings or structures where the level shall not exceed 3mm/sec.
- 18.1.2 If vibration levels are predicted to exceed the criteria specified in paragraph 18.1.1 above, then the MUDFA Contractor shall procure that a suitably qualified practitioner undertakes monitoring during the activity and the MUDFA Contractor shall adopt alternative methods of working to reduce vibration levels to those prescribed in above. The monitoring programme shall be agreed between the MUDFA Contractor, **tie** and CEC. This programme shall include the location and frequency of readings and will identify to whom the results should be made available.
- 18.1.3 In order to ensure that these levels are not exceeded, a programme of on-site monitoring by a suitably qualified practitioner shall be agreed between the MUDFA Contractor, **tie** and CEC. This programme shall include the location and frequency of readings, and to whom the results should be made available and, as a minimum, shall cover all locations identified as 'significantly affected' in the Environmental Statement.

18.2 **Inspection of Buildings and Other Structures**

- 18.2.1 All buildings or other structures, including scheduled monuments and listed buildings that are located within Work Sites, or which are located directly adjacent to such Work Sites, which may be at risk of physical damage or damage caused by vibration generated during the construction works, shall be listed in a schedule compiled by the SDS Provider. The said schedule is to be subject to agreement with the CEC, CEC having the power to add, or subtract, buildings from the schedule as they deem fit. The agreed schedule is to be published in accordance with the requirements of part 5 of Schedule 1 (*Scope of Works and Services*). A notice of inclusion within the schedule is to be delivered to each scheduled building, attachment of a notice to the building shall be sufficient evidence that notice has been served. Subject to

the granting to the SDS Provider of free and unhindered access to the building or structure, a record of the condition and survey of any defects in the building or structure shall be prepared by the SDS Provider prior to the commencement of any Construction Works. Certified copies of the building record and condition survey shall be made available free of charge by the SDS Provider to the owners of the examined buildings or structures, on their presentation of proof of title to the building. The best practicable means shall be undertaken by the SDS Provider to avoid damage, or to minimise damage where it is unavoidable. The condition of the buildings and other structures listed in the schedule shall be monitored by the SDS Provider at reasonable intervals during the MUDFA Works and for a period of one year after the completion of the said MUDFA Works. The results of the aforesaid monitoring shall be made available free of charge by the SDS Provider to the owners of the examined buildings, on their presentation of proof of title to the building.

- 18.2.2 The results of this record of the conditions and survey of any defects shall be provided to **tie** and CEC, the property owner and occupier and, in the case of scheduled or listed features, to CEC and Historic Scotland by the SDS Provider.
- 18.2.3 Subject to the provisions of Clause 42 (*Contractor to Search*), after the MUDFA Works have been completed and at any time up to two years after their completion or when Infracore commences work adjacent to a property, whichever is the earlier, the owners of properties identified under paragraph 18.2.1 above may, upon providing reasonable evidence of damage, request that a second defects survey is undertaken. Any damage which is identified as being caused by the MUDFA Works shall be repaired by the MUDFA Contractor within a reasonable time of identification at the expense of **tie** if it is damage which is the unavoidable result of the construction of the MUDFA Works in accordance with the MUDFA or at the expense of the MUDFA Contractor if he is demonstrably in breach of the MUDFA to the reasonable satisfaction of the property owner and so that the property is returned no worse than the standard of repair and stability existing before the MUDFA Works commenced.

19. DUST AND AIR POLLUTION

19.1 Dust and Other Air Pollution

- 19.1.1 The MUDFA Contractor shall take all necessary measures to avoid creating a dust nuisance during the MUDFA Works.
- 19.1.2 Particular consideration shall be given by the MUDFA Contractor to works affecting the operations of Edinburgh Airport Limited. Details of the specific mitigation measures shall be included within the Construction Management Strategy identified under paragraph 10.3 above.
- 19.1.3 Measures to prevent dust shall include the following:
- 19.1.3.1 the provision of easily cleaned hardstandings for vehicles;
 - 19.1.3.2 the enclosure of material stockpiles at all times and damping down of dusty materials, using water sprays during dry weather;
 - 19.1.3.3 the hard surfacing of heavily used areas which will be kept clean by regular brushing and water spraying;
 - 19.1.3.4 control of dust released from cutting or grinding of materials on the Site; any mobile crushing plant which is used during the MUDFA Works shall be appropriately licensed and sited so as to minimise dust annoyance to any persons who may be liable to be affected by emissions; the MUDFA Contractor shall notify SEPA in advance of any mobile crushing plant being brought onto the Site;
 - 19.1.3.5 the complete sheeting of all vehicles carrying spoil and other dusty materials;
 - 19.1.3.6 watering of unpaved surfaces and roads; and
 - 19.1.3.7 a limit on vehicle speeds on unpaved surfaces of 20 kph.
- 19.1.4 Where dust generating works (such as excavation and demolition) are undertaken close to buildings so that there is a potential for soiling of windows and ledges with dust, the MUDFA Contractor shall clean such windows and ledges as frequently as is necessary (and as a minimum, at least

once per week) during periods of dust generating work and on completion of the MUDFA Works at that Work Site. The MUDFA Contractor shall take precautions to prevent damage occurring as a consequence of cleaning works.

19.1.5 The MUDFA Contractor shall take precautions to prevent the emission of smoke or fumes from construction vehicles, site plant and stored materials including volatile substances. Vehicles and plant shall be well maintained and measures shall be taken by the MUDFA Contractor to ensure that engines and motors are not left running for long periods when not directly in use.

19.1.6 The engines of all parked vehicles or vehicles waiting to enter any work area shall be switched off within two minutes of arrival.

19.1.7 Work compounds shall be laid out by the MUDFA Contractor so that accesses and loading areas are located as far away from sensitive neighbours as is practicably possible, and so that temporary structures screen noisy areas where practicable.

19.1.8 There shall be no burning of waste on the Site.

20. DISPOSAL OF WASTE AND CONTAMINATED MATERIALS

20.1 Waste

20.1.1 A waste management plan ("WMP") shall be developed in accordance with "*Site Waste Management Plans: Guidance for Contractors and Clients*" (DTI 2004). The MUDFA Contractor shall be responsible for the preparation of the WMP to address all of the approvals and consents which require to be obtained and thereafter shall be responsible for the development of the WMP to document the control measures and mitigation measures that shall be implemented. The plan shall in particular identify:

20.1.1.1 responsibilities for waste management;

20.1.1.2 the types and quantities of waste materials likely to be generated;

20.1.1.3 measures to be taken to minimise generation of waste;

- 20.1.1.4 proposals for recycling and/or re-use;
- 20.1.1.5 measures to be adopted for management of waste on the Site including enclosure, segregation, secure storage, sorting for recovery, and other on-site handling;
- 20.1.1.6 proposed treatment and disposal routes; and
- 20.1.1.7 licensing arrangements.

20.1.2 The MUDFA Contractor shall implement and comply with the WMP.

20.1.3 The MUDFA Contractor shall undertake monthly audits to demonstrate compliance with Statutory Requirements and the WMP. The MUDFA Contractor shall set out its audit programme in the WMP and shall provide copies of the audit report to **tie**.

20.1.4 Spoil or other waste materials arising from the MUDFA Works shall be used, wherever reasonably practicable, in the MUDFA Works.

20.1.5 The disposal of waste, including any surplus spoil, shall be managed by the MUDFA Contractor, so far as is reasonably practicable, to maximise the environmental and development benefits from the use of surplus material to minimise the removal of surplus spoil from the Site and to reduce any adverse environmental effects of disposal.

20.2 **Contaminated Land and Materials**

20.2.1 The SDS Provider shall identify all areas within the Site where contaminated land, including land contaminated by invasive alien species listed in Part 2 of Schedule 9, of the Wildlife and Countryside Act 1981 (as amended), may be encountered. In each of these areas:

20.2.1.1 the SDS Provider shall carry out appropriate additional site investigations as instructed by **tie** to the satisfaction of **tie** and CEC to determine the extent and type of contaminants present on the Site;

20.2.1.2 the SDS Provider shall identify potential sources, pathways and receptors and assess the risk of harm to receptors;

- 20.2.1.3 the MUDFA Contractor shall liaise with **tie**, CEC and SEPA to address their reasonable requirements and to agree control or protection measures necessary for dealing with identified risks;
- 20.2.1.4 the SDS Provider shall obtain any necessary licences for the storage, treatment and disposal of contaminated material (including dewatering discharge); and
- 20.2.1.5 the MUDFA Contractor shall ensure that removal and disposal of contaminated materials complies with a strict consignment note system and that delivery is to appropriately licensed disposal facilities.
- 20.2.2 The MUDFA Contractor shall develop management procedures to be followed in the event that contaminated or hazardous materials are discovered on the Site during construction.
- 20.2.3 If the MUDFA Contractor identifies contamination on the Site which has not been previously identified , no further development shall take place (except to the extent that would not disturb that contamination) until a site investigation has been carried out in accordance with paragraph 20.2.1 above.
- 20.2.4 The MUDFA Contractor shall comply with the guidance in the Health & Safety Executive document "*Protection of Workers and the General Public during the Development of Contaminated Land*" (1991) and to the DEFRA document "*Helping to Prevent the Spread of Invasive Non-native Species, Horticultural Code of Practice*" (March 2005), in so far as this is reasonably practicable and applicable to the MUDFA Works. Invasive alien species listed on Schedule 9, Part II of the Wildlife and Countryside Act 1981 as amended by the Nature Conservation (Scotland Act) 2004, will be treated in accordance with the Environmental Protection Act 1990. Japanese knotweed and giant hogweed and soils containing particles of these plants are regarded as controlled waste.
- 20.2.5 Appropriate precautions shall be taken if materials containing asbestos are encountered. The MUDFA Contractor shall observe the exposure limits and measurement methods for asbestos, set out in the Health & Safety Executive

Guidance Note EH 10 (2001), and shall also comply with Health & Safety Executive "*Guideline Note MS13 - Asbestos*" (2005), the Health & Safety Commission document "*Approved Code of Practice and Guidance Note Work with Asbestos Insulation, Asbestos Coating and Asbestos Insulating Board*" (2002), in so far as these are applicable to the MUDFA Works.

21. PROTECTION OF THE WATER ENVIRONMENT

21.1 Waste Water and Run-off

21.1.1 A construction site drainage plan ("CSDP") shall be prepared, in consultation with SEPA. The MUDFA Contractor shall be responsible for the preparation of the CSDP to address all of the approvals and consents which require to be obtained and thereafter shall be responsible for the development of the CSDP to document the control measures and mitigation measures that shall be implemented. The CSDP shall include measures to ensure that surface water runoff is contained and managed appropriately and that appropriate measures are taken to prevent inundation of the Site. "Sustainable Urban Drainage System" ("SUDS") measures shall be included within the MUDFA Works where applicable, in accordance with Law and in accordance with the guidance in:

21.1.1.1 "*Interim Code of Practice for SUDS*" (CIRIA 2004);

21.1.1.2 "*Sustainable Urban Drainage System – Design Manual for Scotland and Northern Ireland*" (CIRIA C521); and

21.1.1.3 "*Sustainable Urban Drainage Systems – Best Practice Manual*" (CIRIA C523).

21.1.2 The MUDFA Contractor shall implement and comply with the CSDP.

21.1.3 The MUDFA Contractor shall ensure that there shall be no washout from temporary construction laydown and storage areas into watercourses.

21.1.4 No water shall be discharged into watercourses, but shall be stored in settlement lagoons or tanks, or filtered prior to discharge, or discharged onto a grassy area to soak away.

- 21.1.5 Waste water and site discharges to surface water or sewer shall only be permitted where the effluent quality and discharge location is acceptable to SEPA or Scottish Water (as appropriate). Water Environment (Controlled Activities) (Scotland) Regulations 2005 ("CAR") discharge authorisation shall be obtained by the MUDFA Contractor if required prior to discharge.
- 21.1.6 The MUDFA Contractor shall ensure that all treatment facilities are regularly inspected and maintained and that a full record is kept of inspection, maintenance and other measures to maintain equipment performance.
- 21.1.7 Approval from SEPA shall be obtained by the MUDFA Contractor prior to any excavation below the water table, including any site de-watering and discharge. Contact should be made with SEPA at least one month prior to the relevant operation to establish the level of CAR authorisation required. Cut-off ditches may be used to prevent water from entering excavations.
- 21.1.8 The MUDFA Contractor shall comply with BS 6031: 1981 "*Code of Practice for Earthworks*", regarding the general control of site drainage is so far as this is applicable to the MUDFA Works.
- 21.1.9 The MUDFA Contractor shall ensure that areas of exposed ground and stockpiles are minimised to reduce silty runoff. Geotextiles or other equivalent measures shall be used by the MUDFA Contractor where necessary to prevent silty run-off from soil mounds close to watercourses.
- 21.1.10 The MUDFA Contractor shall ensure that any water that has come into contact with contaminated materials is disposed of in accordance with the requirements of SEPA or Scottish Water (as appropriate).
- 21.1.11 The MUDFA Contractor shall take suitable precautions to prevent the entry of pollutants into any bodies of water, and report any incidents to SEPA and Scottish Water.
- 21.1.12 Procedures for responding to potentially polluting incidents or inundation of the site by floodwaters shall be implemented in accordance with SEPA guidance (with reference to paragraph 21.6 below).
- 21.1.13 Cementitious mixtures are highly alkaline and corrosive and shall be prevented from entering watercourses and drains. The MUDFA Contractor

shall make suitable provision for washing out ready mix concrete lorries, skips, concrete pumps and the like.

21.2 Storage of Polluting Materials

21.2.1 The MUDFA Contractor shall make provision to ensure that oil drums and containers or other potential contaminants stored on the Site are properly isolated and banded and that no oil or other contaminants are allowed to reach watercourses or groundwater, including aquifers. Oil storage containers (both fixed and mobile) with a 200 litre capacity or greater shall be stored in compliance with the Water Environment (Oil Storage) (Scotland) Regulations 2006 (where applicable). Drip trays and other secondary containment measures shall be used by the MUDFA Contractor where necessary to prevent spills during refuelling and operation of small static and mobile equipment. Storage locations for such materials shall be positioned away from watercourses. All surface water or other contaminated water which accumulates in bunds shall be removed by the MUDFA Contractor by manually controlled positive lift pumps, and not by means of a gravity drain.

21.2.2 Refuelling shall be carried out by the MUDFA Contractor in a designated area which is away from watercourses and drains.

21.2.3 Spill response kits containing equipment appropriate to the quantity and types of materials present on site shall be available for use by the MUDFA Contractor in the event of a fuel spillage. Personnel shall be trained in their use.

21.3 Protection of Aquifers

21.3.1 The MUDFA Contractor shall have due regard for protection of underlying aquifers and adhere to the SEPA "*Groundwater Protection Policy for Scotland*". In all instances, measures to ensure appropriate protection of aquifers shall be undertaken, subject to prior approval of SEPA. Prior approval shall be sought by the MUDFA Contractor in writing, prior to commencement of the relevant works.

21.4 **Control and Management of Foul Drainage**

21.4.1 Where permanent facilities are not accessible foul water and sewage effluents produced by the construction workforce shall be contained by temporary foul drainage facilities. A licensed contractor engaged by the MUDFA Contractor shall dispose of all foul water collected off-site.

21.5 **Works in the Vicinity of Water**

21.5.1 The MUDFA Contractor shall take suitable precautions to prevent the entry of pollutants, including sediments and dusts, into any bodies of water, and report any incidents to SEPA.

21.5.2 Crossings of watercourses shall be constructed by the MUDFA Contractor so as not to impede the flow, obstruct the movement of floodwater or exacerbate erosion of the channel and banks and shall require CAR authorisation from SEPA.

21.5.3 In watercourses which support migratory fish, works shall be avoided during upstream and downstream fish migration, spawning, incubation and hatching periods.

21.5.4 Where bankside habitat is temporarily affected, it shall be reinstated by the MUDFA Contractor to its original form on completion of the works.

21.5.5 Areas of bankside adjacent to working areas shall be fenced off during construction to prevent damage to the banksides.

21.5.6 Stripping of surface vegetation near water by the MUDFA Contractor shall be kept to a minimum. Exposed surfaces shall be seeded or reinstated by the MUDFA Contractor with vegetation, as soon as is practical after construction in that working area is complete.

21.5.7 Where culverting is required as Temporary Works, such culverting shall be subject to CAR authorisation from SEPA. Culverting that is so authorised shall be designed by the MUDFA Contractor and constructed to permit the passage of fish and other aquatic fauna under normal flow conditions.

21.6 **Guidance**

21.6.1 The MUDFA Contractor shall comply with all relevant SEPA "pollution prevention" guidelines, including, but not necessarily limited to:

- 21.6.1.1 PPG1 General guide to the prevention of water pollution.
- 21.6.1.2 PPG2 Above ground oil storage tanks.
- 21.6.1.3 PPG3 The use and design of oil separators.
- 21.6.1.4 PPG4 Disposal of sewage where no mains drainage is available.
- 21.6.1.5 PPG5 Works in, near or liable to affect watercourses.
- 21.6.1.6 PPG6 Working at construction and demolition sites.
- 21.6.1.7 PPG7 Refuelling facilities
- 21.6.1.8 PPG8 Storage and disposal of used oils.
- 21.6.1.9 PPG13 High pressure water and steam cleaners.
- 21.6.1.10 PPG18 Control of spillages and fire fighting runoff.
- 21.6.1.11 PPG19 Garages and vehicle service centres.
- 21.6.1.12 PPG21 Pollution incident response planning.
- 21.6.1.13 PPG22 Dealing with spillages on roads.
- 21.6.1.14 PPG23 Maintenance of structures over water.
- 21.6.1.15 PPG26 Pollution prevention storage and handling of drums and intermediate bulk containers.

21.7 **Water Environment (Controlled Activity) (Scotland) Regulations 2005**

Without prejudice to the foregoing terms of this paragraph 21, the MUDFA Contractor shall comply with the terms of CAR where relevant to the MUDFA Works.

22. **ECOLOGY**

22.1 Encroachment into Wildlife Areas

22.1.1 The MUDFA Contractor shall take all reasonably practicable measures to minimise harm to and disturbance of wildlife caused by noise and vibration, dust and other air pollution, including:

22.1.1.1 minimising habitat loss by keeping the working corridor and extent of working areas to the minimum necessary for the MUDFA Works; removal of habitats and new planting shall be undertaken in consultation with Scottish Natural Heritage ("SNH"), **tie** and CEC;

22.1.1.2 fencing off adjacent habitat to prevent unnecessary incursion or damage; staff shall be made aware of the need to avoid damage to adjacent retained areas;

22.1.1.3 the reinstatement or replacement of areas of habitat disturbed during construction in areas not required for the MUDFA Works on completion of the MUDFA Works in accordance with the Landscape and Habitat Management Plan ("LHMP"). The MUDFA Contractor shall be responsible for the development of the LHMP to document the control measures and mitigation measures that shall be implemented insofar as relevant to the MUDFA Works and as instructed by **tie**. Any reasonable costs incurred by the MUDFA Contractor in carrying out such development shall be paid by **tie**; and

22.1.1.4 compliance with the guidelines set out in British Standard (BSI *Code of Practice for Earthworks* (BS6031) in relation to soil stripping, storage and placing.

22.1.2 Approval shall be obtained by the MUDFA Contractor from **tie**, SNH, SEPA, Scottish Executive Environment Group Wildlife Habitats Division ("SEEG WHD") and CEC, for detailed method statements for any works proposed in designated sites, including Special Protection Areas (SPA)/Ramsar sites, Sites of Special Scientific Interest (SSSI), Sites of Interest for Nature Conservation (SINC) and Wildlife Sites.

22.1.3 Applications for approval shall be made by the MUDFA Contractor at least one calendar month prior to relevant works commencing.

22.2 **Protected Species**

22.2.1 In advance of any works, the SDS Provider shall employ suitably qualified professionals to check all working areas and any land within 30 metres of the boundary of the working area (unless there is a boundary with a private third party within the 30 metres, in which case no checks shall be taken within the private land, or 100m from any piling operations or use of explosives) for the presence of species protected by statute. Where protected species are identified, appropriate mitigation measures shall be agreed by the MUDFA Contractor in advance with the relevant authorities and in accordance with any requirements for licensing, and these measures shall be implemented. The MUDFA Contractor shall be responsible for satisfying itself that the SDS Provider has obtained any required licences from the relevant authority and shall carry out any required mitigation measures. Any reasonable costs incurred by the MUDFA Contractor in carrying out such mitigation measures shall be paid by **tie**.

22.2.2 Where any habitat has to be cleared in the breeding bird season, typically March to June or July for most species, the habitat must be checked by the SDS Provider prior to removal for the presence of nesting wild birds, their nests and eggs and young. If found, no habitat shall be removed until nesting is complete, or unless other suitable mitigation is agreed in advance between the MUDFA Contractor and SNH.

22.2.3 The SDS Provider shall be responsible for obtaining a licence from SNH for any work that may cause disturbance to a badger or involves the damage or destruction of a sett. Licence applications shall be made by the SDS Provider for any works within 10m, heavy machinery operating within 30m, and for piling or use of explosives within 100m, and no works shall proceed until the required licences are obtained. Alternative setts shall be provided in the event of and in advance of any loss. Any reasonable costs incurred by the MUDFA Contractor in providing such alternatives setts shall be paid by **tie**.

- 22.2.4 The SDS Provider shall be responsible for obtaining a licence from SEEG WHD for any work which may cause disturbance to otters or involve damage or destruction to an otter holt or lying up site or if any works are proposed within 30m of an otter holt or lying up site. Alternative holts or lying up sites shall be provided in the event of and in advance of any loss.
- 22.2.5 The SDS Provider shall be responsible for ensuring that all bridges and other built structures and mature and dead trees within the working area shall be checked by a licensed bat handler for their use by roosting or hibernating bats prior to felling or other potentially damaging operations. If found, mitigation measures shall be agreed between the MUDFA Contractor and SNH and SEEGWHD and implemented, including review of the design to seek ways of avoiding loss of the roost. If avoidance is not possible, a licence shall be applied for by the SDS Provider from SEEG WHD for disturbance to a European Protected Species and / or destruction or damage to a breeding site or resting place. Alternative roost sites shall be provided in advance of any loss. Any loss of feeding habitat shall be compensated for by new habitat creation as detailed in the LHMP. All mitigation measures for protected species shall be installed by the MUDFA Contractor as early as possible during the construction process so that use can be established at an early stage.
- 22.2.6 Where appropriate use of mitigation measures by target species will be positively encouraged using a variety of techniques e.g. feeding.
- 22.2.7 Permanent mitigation structures for protected species including mammal fencing and tunnels and artificial badger setts shall be checked during construction and approved on completion by a suitably qualified ecologist and reported to SNH. Should these structures not be to the required standard specified, remedial measures shall be taken by the MUDFA Contractor .
- 22.2.8 Mitigation shall aim to compensate for loss of foraging specifically for badgers through creation of appropriate grassland and scrub habitat wherever possible within the Limits of Deviation in the Tram Legislation in line with the Civil Aviation Authority Advice Note 3 – "*Potential Bird Hazards from Amenity Landscaping and Building Design*". Any reasonable costs incurred by the MUDFA Contractor in providing such mitigation shall be paid by **tie**.

22.2.9 The MUDFA Contractor's personnel and personnel engaged by any Sub-Contractors shall be briefed by a suitably qualified professional on measures for protected species as part of site induction.

22.3 **Protection of Mature Trees**

22.3.1 For the purposes of this paragraph, "trees" are defined as trees with a diameter of over 10cm girth at a height of 1.5 m above ground level.

22.3.2 Loss of trees shall be avoided as far as reasonably practicable. The MUDFA Contractor shall comply with the guidelines set out in British Standard (BS) 5837:1991 "Trees in Relation to Construction" insofar as these are reasonably practicable and applicable to the MUDFA Works.

22.3.3 All tree surgery operations shall comply with the British Standard (BS) 3998 "*Recommendations for Tree Work*" and a method statement addressing safety of workers and the public shall be prepared and implemented.

22.3.4 Felling shall be carried out in accordance with the Forestry Commission document "*Forest and Water Guidelines 2004*", which relates to the influence that woodland and trees can have on the freshwater environment, insofar as this is reasonably practicable and to the extent that they are applicable to the MUDFA Works.

22.3.5 Prior to felling, the SDS Provider shall procure that trees suitable as bat roosts shall be checked by a licensed bat handler for roosting and hibernating bats, and should any be identified, mitigation measures shall be agreed by the MUDFA Contractor with SNH and SEEG WHD and the SDS Provider shall obtain any relevant licences.

22.3.6 Woody material generated shall be retained on the Site as far as is reasonably possible and used as part of habitat creation measures.

22.3.7 Adverse effects on all trees within or in the vicinity of the Site shall be minimised by the adoption of suitable mitigation measures. These may include, but shall not be limited to, the following:

22.3.7.1 selective removal of lower branches in an approved manner, to reduce mechanical damage by construction plant;

22.3.7.2 control of construction activities to minimise compaction of the ground beneath the entire canopy of the tree; no heavy materials or plant shall be stored, and construction traffic movements shall be controlled, by fencing or other means, so as to minimise vehicle movement within the canopy;

22.3.7.3 the use of matting around the root zone to minimise soil compaction; and

22.3.7.4 the use of chestnut paling around the trunk to prevent damage.

22.4 **Tree Replacement**

Where trees are removed, damaged or die as a consequence of the MUDFA Works, they shall be replaced by the MUDFA Contractor by at least 2 trees for every 1 removed, which replacement trees shall be of similar or approved size and in a location as close as possible to the original position. Any reasonable costs incurred by the MUDFA Contractor in providing such assistance shall be paid by **tie**. All tree planting shall be agreed with **tie** and CEC, and shall be in accordance with the LHMP. The supply, storage, handling, planting and maintenance of new planting shall be undertaken in accordance with the appropriate British Standards, including, but not necessarily limited to;

22.4.1 (BS5837) "Trees in Relation to Construction";

22.4.2 (BS3998) "Recommendations for Tree Works"; and

22.4.3 (BS4428) "Code of Practice for General Landscape Operations (excluding hard surfaces)".

22.5 **Control of Invasive and Alien Species**

22.5.1 If any invasive alien species listed in Schedule 9, Part II of the Wildlife and Countryside Act 1981 (as amended), are identified along the route, including Japanese Knotweed (*Fallopia japonica*), Giant Hogweed (*Heracleum mantegazzianum*) or Himalayan Balsam (*Impatiens glandulifera*), a strategy shall be developed by **tie** and implemented by the MUDFA Contractor prior to the commencement of the Construction Works to manage their presence. The strategy will ensure appropriate treatment of invasive alien species in

advance of construction in accordance with approved methodology and will prevent the spread of the species within and outside the development area. The soil containing these species or plants thereof shall be dealt with as contaminated material and disposed of in accordance with paragraph 20.2 above. Any reasonable costs incurred by the MUDFA Contractor in carrying out such disposal shall be paid by **tie**.

22.5.2 The MUDFA Contractor shall comply with the strategy for the control of invasive and alien species.

23. **ARCHAEOLOGY AND CULTURAL HERITAGE**

23.1 **Archaeological and Heritage Mitigation Plan**

23.1.1 In advance of the commencement of the Construction Works, an "Archaeological and Heritage Mitigation Plan" ("**AHMP**") shall be prepared. The MUDFA Contractor shall be responsible for the development of the AHMP to document the control measures and mitigation measures that shall be implemented insofar as relevant to the MUDFA Works and as instructed by **tie**. Any reasonable costs incurred by the MUDFA Contractor in carrying out such development shall be paid by **tie**. The AHMP will identify the level of mitigation proposed at each site of archaeological or historic significance (as defined by statute and/or Historic Scotland), taking into account the measures outlined in the Environmental Statements. These may include:

23.1.1.1 prior archaeological evaluation by trial excavations;

23.1.1.2 a detailed photographic record prior to construction;

23.1.1.3 a watching brief during construction;

23.1.1.4 a detailed standing building survey and salvage;

23.1.1.5 archaeological excavation;

23.1.1.6 preservation in situ;

23.1.1.7 further documentary research and archiving; or

- 23.1.1.8 other such measures as may be approved.
- 23.1.2 The MUDFA Contractor shall implement and comply with the AHMP.
- 23.1.3 No development within or immediately adjacent to an area which is, in the opinion of **tie** and CEC, of known or suspected archaeological importance, shall commence until a scheme to deal with any archaeological remains on the Site has been submitted to and approved by **tie** and CEC and implemented. Application for prior approval shall be made by the SDS Provider at least two calendar months in advance of the relevant works commencing.
- 23.1.4 No development within or adjacent to an area which is designated as a Scheduled Ancient Monument shall commence without the SDS Provider confirming whether Scheduled Monument Consent is required from Historic Scotland, and where necessary obtaining such consent. The AHMP shall identify the Scheduled Ancient Monuments and Listed Buildings which shall be affected, and shall outline the works that can take place in proximity to them and will detail the necessary mitigation.
- 23.1.5 All records obtained through the mitigation shall be lodged with the National Monuments Record of Scotland ("**NMRS**").
- 23.1.6 The AHMP shall outline the appropriate procedures that shall be followed should any significant archaeological remains be found during the pre-construction excavations.
- 23.1.7 Any archaeological works carried out on the Site by the MUDFA Contractor shall be undertaken by a suitably qualified investigating body acceptable to **tie** and CEC. Any reasonable costs incurred by the MUDFA Contractor in providing such assistance shall be paid by **tie**. The results shall be provided to the property owner and occupier and, in the case of scheduled or listed features, to **tie**, CEC and Historic Scotland.
- 23.1.8 The MUDFA Contractor shall take all reasonable precautions to prevent employees, any Sub-Contractors, their employees, or any other persons from removing or damaging any fossils, coins, articles of value or antiquity, structures or other remains or any other thing of archaeological or historical

interest during investigations and during all the MUDFA Works. The AHMP shall outline the legal obligations placed on those who discover portable antiquities or disturb human remains.

23.1.9 The SDS Provider will have appointed a suitably qualified professional person, to record the condition of all scheduled and listed buildings and structures or parts thereof, within or adjacent to the construction working areas which are identified as at risk from physical damage or vibration. This will have been carried out in accordance with the Institute of Field Archaeologists Standards and Guidance. The results shall be provided to the property owner and occupier and in the case of scheduled or listed features, to CEC and Historic Scotland.

23.1.10 At least one month prior to commencement of the relevant excavation works, a copy of each survey undertaken under paragraph 23.1.9 above shall be provided by the SDS Provider to **tie**, the property owner and occupier and, in the case of scheduled or listed features, to **tie**, CEC and Historic Scotland.

23.1.11 After the MUDFA Works have been completed and at any time up to two years after the opening of the tram or when Infracore commences work adjacent to a property, whichever is the earlier, the above parties may, upon providing **tie** or the MUDFA Contractor with reasonable evidence of damage, request that a second defects survey is undertaken. Any damage which is identified as being caused by the MUDFA Works shall be repaired within a reasonable time of identification at the expense of **tie** if it is damage which is the unavoidable result of the construction of the MUDFA Works in accordance with the MUDFA or at the expense of the MUDFA Contractor if he is demonstrably in breach of the MUDFA to the reasonable satisfaction of the property owner and such that the property is returned to the standard of repair and stability existing before the MUDFA Works commenced.

23.2 Guidance

23.2.1 All archaeological investigations, watching briefs or other activities shall be carried out in accordance with the following guidance from the Institute of Field Archaeologists, particularly – but not necessarily limited to standards and guidance for:

23.2.2 field evaluation;

23.2.3 excavation;

23.2.4 archaeological watching brief;


23.2.5 archaeological investigation and recording of standing buildings or structures;

23.2.6 collection, documentation conservation and research of archaeological materials;

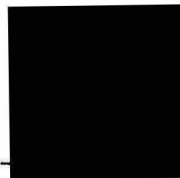
23.2.7 the IFA policy statement on Environmental Protection;

23.2.8 the IFA Code of Conduct; and

23.2.9 the British Archaeologists and Developers Liaison Group Code of Practice.



Director/Authorised Signatory
TIE LIMITED



Director/Authorised Signatory
**ALFRED McALPINE INFRASTRUCTURE
SERVICES LIMITED**

**THIS IS SCHEDULE 3 REFERRED TO IN THE FOREGOING AGREEMENT
BETWEEN TIE AND THE MUDFA CONTRACTOR**

SCHEDULE 3

SPECIFICATION

1 GENERAL OBLIGATIONS

- 1.1 The approximate locations of all known Apparatus or other private and publicly owned services, excluding connections to individual properties, are indicated on the Drawings. Immediately prior to commencing any excavation work the MUDFA Contractor shall verify on site the exact position of existing Apparatus or other privately and publicly owned services which may be affected by the MUDFA Works.
- 1.2 The MUDFA Contractor shall make every attempt in ensuring no damage is caused to buildings, street furniture, surface boxes or similar fixtures in close proximity to the MUDFA Works.
- 1.3 Under no circumstances shall excavations to locate Apparatus or other services be carried out by mechanical excavator. The MUDFA Contractor is required to provide and use Cable Avoiding Tools (CATS) or similar as an aid to identifying the location of Apparatus, other services or utility plant. The MUDFA Contractor shall maintain on Site a register of such equipment to be used and test certificates thereto. Personnel competent to use such equipment should be identified to tie's Representative.
- 1.4 Where existing manhole or service covers are disturbed by the MUDFA Works, approved temporary covers shall be provided and maintained in place until such time as the permanent covers are replaced or renewed as directed.
- 1.5 In all cases where subsidence or settlement occurs due to the MUDFA Works, the MUDFA Contractor shall excavate to the required depth, expose for examination and make good the settled ground and repair or restore any existing Apparatus or other services or other pipes or structures therein that have been damaged or disturbed by the MUDFA Contractor in carrying out the MUDFA Works.
- 1.6 Whenever an existing Apparatus or service is found to differ from the Drawings in location, size, depth, level or otherwise, the MUDFA Contractor shall notify tie's Representative, in writing, of such difference within 24 hours.
- 1.7 Customer services to individual properties have not generally been listed or shown on the Drawings. The MUDFA Contractor shall make arrangements with the Utilities and others concerned for the phasing of all necessary

disconnections (where possible), diversions and reconnections of customer services and other services affected by the MUDFA Works.

- 1.8 Where no specific Utilities Specification is given or available the MUDFA Works shall be undertaken in accordance with Good Industry Practice.

2 GENERAL CIVIL ENGINEERING WORKS

2.1 Excavations and Permanent Reinstatements – General

2.1.1 Unless otherwise specified in any Works Order, excavations and permanent reinstatement required as part of the MUDFA Works shall be in accordance with New Roads and Streetworks Act 1991; Specification for the Reinstatement of Openings in Roads, October 2003; Specification for the Excavation and Reinstatement of Openings in Highways (RAUC SWP 163) September 1991; Code of Practice for the Co-ordination of Streetworks and Works for Road Related Purposes and Related Matters, Second Edition 2001; and Measures Necessary where Apparatus is Affected by Major Works (Diversionary Works), June 1992.

2.2 Imported Backfill Materials

2.2.1 The MUDFA Contractor shall, subject to paragraph 20.1.4 of Schedule 2 (*Technical Requirements*), notify **tie** 14 days in advance of the intention to use imported fill and its source. The MUDFA Contractor shall inform **tie** of any change of source to allow sufficient time for the inspection and assessment of that source.

2.3 Reinstatement of Surface Finishes

2.3.1 All hard surface areas shall be broken out by clean saw cut or to a natural boundary or joint to the minimum extent necessary to complete the MUDFA Works.

2.3.2 Black top areas shall be reinstated in accordance with paragraph 2.1 above and in accordance with Good Industry Practice.

2.3.3 Block paving, setts, and paving slabs shall be removed carefully and set to one side for re-use. On completion of any MUDFA Works the block paving, setts and paving slabs shall be re-instated in accordance with Good Industry Practice. Pre existing damaged block paving, setts, and paving slabs shall be removed and replaced with new and any reasonable costs incurred by the MUDFA Contractor in such removal and replacement shall be paid by **tie**.

2.3.4 In grassed areas, the turf shall be removed, set aside for re-use, stored in a manner to prevent decomposition and reinstated on completion of the works and kept moist until established, all in accordance with Good Industry Practice. Pre existing turf unsuitable for re-use shall be disposed of and replaced with imported turf to match the existing turf and any reasonable costs incurred by the MUDFA Contractor in such disposal and replacement shall be paid by **tie**.

3 UTILITY APPARATUS

3.1 Utility Specific Information

- 3.1.1 Unless otherwise specified in a Works Order, the MUDFA Works in relation to the Utilities Apparatus shall be in accordance with the Utilities Specifications listed in Appendix A, except for the general specifications for re-instatements, which shall be in accordance with Section 2 of this Schedule 3 (*Specification*). Unless otherwise specified in this Schedule 3 (*Specification*) or a Works Order, the BT Utilities Specification shall be used for all tele-communication Utilities. All MUDFA Works are subject to the provisions of Schedule 1 (Scope of Works and Services). Where specifications are unavailable, the Construction Works shall be carried out in accordance with Good Industry Practice.
- 3.1.2 Details of replacement pipes, ducts, thrust block sizes and chambers are given in Appendix B for gas, water, sewerage, electricity and telecommunications.

4 TESTING EXISTING APPARATUS

4.1 All Apparatus shall be tested, recorded and certified prior to connection work or abandonment by either the MUDFA Contractor or the appropriate Utility in accordance with the Utilities Specification given in Appendix A and Good Industry Practice, unless otherwise specified in a Works Order. The responsibility for testing existing apparatus is set out in Part 4 of Schedule 1 (*Scope of Works and Services*), which sets out the Construction Works to be carried out in respect of the Apparatus.

5 TESTING AND COMMISSIONING

5.1 Testing and commissioning shall be undertaken by either the MUDFA Contractor or the appropriate Utility in accordance with the Utilities Specification given in Appendix A and Good Industry Practice, unless otherwise specified in a Works Order. The responsibility for testing and commissioning is set out in part 4 of Schedule 1 (*Scope of Works and Services*), which sets out the Construction Works to be carried out in respect of the Apparatus.

6 DECOMMISSIONING AND REMOVAL OF EXISTING APPARATUS

6.1 Where applicable, existing Apparatus shall be decommissioned by either the MUDFA Contractor or the appropriate Utility in accordance with the Utilities Specification given in Appendix A and Good Industry Practice, unless otherwise specified in a Works Order. The responsibility for decommissioning is set out in part 4 of Schedule 1 (*Scope of Works and Services*), which sets out the Construction Works to be carried out in respect of the Apparatus.

APPENDIX A

TABLE OF RELEVANT UTILITIES SPECIFICATIONS

Scottish Power Utilities Specification

Unless otherwise specified in a Works Order, the specification for the MUDFA Works in respect of Scottish Power Apparatus comprises the documents listed below:

- CAB-03-019 Issue 3 – Technical Requirements for the installation by Contractors of Joints up to and Including 33kV
- CAB-03-020 Issue 6 - Technical Specification for the power cables up to and Including 33kV
- CAB-03-023 Issue 1 11kV joints and terminations
- CAB-03-024 Issue 1 - 33kV joints and terminations
- CAB-03-027 Issue 1 - Technical Specification for Joints and Terminations on 11kV Polymeric Insulated Cables
- CAB-03-028 Issue 1 – Specification for Ducting for power Cables
- CAB-03-029 Issue 1 - Technical Specification for Joint Kits on low Voltage Cables
- CAB-06-002 Issue 1 – Cable and Accessories Approval, Sicame Underground Service Distribution Unit
- CAB-06-003 Issue 1 - Cable and Accessories Approval, Pirelli Isocyanate- Free Joint Encapsulation medium (JEM)
- Further information can be found at:

<http://www.sppowersystems.co.uk/networkservices/licensed.asp>

BT Utilities Specification

Unless otherwise specified in a Works Order, the specification for the MUDFA Works in respect of BT Apparatus comprises the documents listed below:

- Specification LN 550 for Underground Duct Laying and Associated Works

Easynet Utilities Specification

Unless otherwise specified in a Works Order, the specification for the MUDFA Works in respect of Easynet Apparatus comprises the documents listed below:

- Specification for Civil Infrastructure
- Standard Detail Drawings

Scottish Water Utilities Specification

Unless otherwise specified in a Works Order, the specification for the MUDFA Works in respect of Scottish Water Apparatus comprises the documents listed below:

Note

The 100 and 200 series are overall or general requirements, the 300 series relates to waste, the 400 series relates to clean water and the 500 series relates to civil engineering works.

- Abandoning Mains and Fittings WII/WI/2.05
- Actions Following Commissioning Failures WII/WI/2.03
- Commissioning of Mains WII/WI/2.02
- Connection to the Live Network DOMS/WI/2.04
- Disinfection of Water Mains and Services DOMS/PRC/1.06
- DOMS20 Training Pack 6 – Network Design and Operability_V1
- Emergency Temporary treated water supplies DOMS/PRC/1.03
- Enforcement of the Water Byelaws DOMS/PRC/1.07
- General Requirements for Hygiene DOMS/PRC/1.01
- Communications Plan External DOMS/PRC/2.02
- Communications Plan internal DOMS/PRC/2.03
- Hazard Identification and Initial Response DOMS/PRC/2.01
- Impact Assessment form V3
- Incident Event Feedback Plan LESSONS LEARNT DOMS/PRC/2.05
- Incident Event management Plan DOMS/PRC/2.04
- Hygiene Facilities for Personnel DOMS/WI/1.01
- Multi-Functional Working Hygiene Procedures DOMS/PRC/1.02
- New Mains and Rehabilitation WII/PRC/2.01
- Prevention of Contamination During Construction WII/WI/2.01
- Sampling and bacteriological testing/acceptance for bringing into supply DOMS/PRC/1.05

- SSP-SP-ADO-05000502 – Standards and Specifications, Strategy and Planning Cross Functional, Amendment Document, General Engineering Specifications, Section 502 – SESWI 5 Amendment Document
- SSP-SP-SPE-01000100 - Standards and Specifications, Strategy and Planning Cross Functional, Specification, Design Requirements and Policy Issues, Section 100 – Design Requirements
- SSP-SP-SPE-02000203 Standards and Specifications, Strategy and Planning Cross Functional, Specification, General Functional Specifications, Section 203 – Confined Spaces
- SSP-SP-SPE-02000204 Standards and Specifications, Strategy and Planning Cross Functional, Specification, General Functional Specifications, Section 204 – Hazardous areas
- SSP-SP-SPE-03000302 - Standards and Specifications, Strategy and Planning Cross Functional, Specification, Wastewater Treatment and Pumping, Section 302 – Waste Water Collection
- SSP-SP-SPE-04000404- Standards and Specifications, Strategy and Planning Cross Functional, Specification, Water Treatment and Pumping, Section 404 – Water Distribution
- SSP-SP-SPE-05000501- Standards and Specifications, Strategy and Planning Cross Functional, Specification, General Engineering Specifications, Section 501 – General Requirements
- SSP-SP-SPE-05005032 - Strategy and Planning, Standards and Specifications, Engineering Specifications, works Manuals, Wastewater Treatment Works Operating manual.
- SSP-SP-SCH-02002021 - STANDARDS and SPECIFICATIONS, STRATEGY and PLANNING CROSS FUNCTIONAL, SCHEDULE, GENERAL FUNCTIONAL, SPECIFICATIONS, MECHANICAL and ELECTRICAL ENGINEERING LOAD SCHEDULE
- SSP-SP-SPE-02000201 - Standards and Specifications, Strategy and Planning Cross Functional, Specification, General Functional Specifications, Section 201 – Facilities
- SSP-SP-SPE-02000202 - Standards and Specifications, Strategy and Planning Cross Functional, Specification, General Functional Specifications, Section 202 – Mechanical and Electrical Engineering
- SSP-SP-SPE-03000303 - Standards and Specifications, Strategy and Planning Cross Functional, Specification, Wastewater Treatment and Pumping, Section 303 – Waste Water Pumping Stations
- SSP-SP-SPE-04000402 - Standards and Specifications, Strategy and Planning Cross Functional, Specification, Wastewater Treatment and Pumping, Section 402– Water Pumping Station
- SSP-SP-SPE-04000403 - Standards and Specifications, Strategy and Planning Cross Functional, Specification, Water Treatment and Pumping, Section 403 – Water Storage

- SSP-SP-SPE-05000504 - Strategy and Planning, Standards and Specifications, Engineering Specifications, Works Manuals, Works Equipment manuals
- SSP-SP-SPE-05005011 - Standards and Specifications, Strategy and Planning Cross Functional, Specification, general engineering Specification, Section 501-1 – Asset Data Register Form
- SSP-SP-SPE-05005012

Scotland Gas Networks Utilities Specification

Unless otherwise specified in a Works Order, the specification for the MUDFA Works in respect of Scotland Gas Networks Apparatus comprises the documents listed in the tables below:

Note on Category: 1-Copy Supplied, 2-Listed for information, 3-Other relevant published documents

Document Type	Document Ref	Category	Status	Policy Area	Policy Area
Management Procedure	NGTUK/SHE/MP/002	2	Sep-04	Protection of Health from Asbestos	Health & Safety
Management Procedure	T/PM/A/3	2	Oct-04	Management Procedure For Safety, Health & Environmental Audit	Assurance
Management Procedure	T/PM/ASB/1	2	Oct-04	Management Procedure For Undertaking Work On Asbestos Mains	Distribution
Management Procedure	T/PM/AV/1	2	Sep-04	Management Procedure For The Assessment And Validation Of Data And Information Provided By Utility Infrastructure Providers For New Mains And Services (Including Service Alterations And Disconnections) Below 7 Bar To Be Adopted By Transco	Distribution
Management Procedure	T/PM/DIS/4.2	2	May-05	Management Procedures For Section 4 - Excavations Module 4.2 - Permanent And Temporary Anchorage For Mains And Large Services	Distribution
Management Procedure	T/PM/DP/1 Part 1	1	Aug-04	Procedure For The Prevention Of Damage To Transco's <7bar Distribution System Part 1 Process Overview.	Distribution
Management Procedure	T/PM/DP/1 Part 2	1	May-04	Procedure For The Prevention Of Damage To Transco's <7bar Distribution System Part 2 Network Roles And Responsibilities.	Distribution
Management Procedure	T/PM/DP/1 Part 3	1	May-04	Procedure For The Prevention Of Damage To Transco's <7bar Distribution System Part 3 Classification Of Risk.	Distribution
Management Procedure	T/PM/DP/1 Part 4	1	May-04	Procedure For The Prevention Of Damage To Transco's <7bar Distribution System Part 4 Service Provider Roles And Responsibilities.	Distribution
Management Procedure	T/PM/DR/10	1	Oct-04	Management Procedure For The Identification Of Third Party Hazardous Underground Plant	Planning & Records
Management Procedure	T/PM/DR/2	1	Oct-04	Management Procedure for the Capture of Below 7bar Pipe Asset Records	Planning & Records

Management Procedure	T/PM/DR/3	1	Oct-04	Management Procedure for Updating Digitally Recorded Pipe Asset Records	Planning & Records
Management Procedure	T/PM/DR/4	1	Oct-04	Management Procedure for Asset Records Error Management Part I below 7bar Pipes and Associated Plant	Planning & Records
Management Procedure	T/PM/DR/8	2	Oct-04	Management procedure for the Capture of Pipe Asset records by UIP/GT organisations vesting Plant in Transco	Planning & Records
Management Procedure	T/PM/ECP/2	1	Jun-04	Management Procedure For Cathodic Protection of Buried Steel Systems	Transmission
Management Procedure	T/PM/EL/15	2	Sep-04	Management Procedure for Electrical Safety at Consumers' Premises	Measurement & Process
Management Procedure	T/PM/EL/16	2	Oct-04	Management Procedure for Electrical and Instrumentation Systems and Equipment	Measurement & Process
Management Procedure	T/PM/EL/18	2	Oct-04	Management Procedure For Electrical Safety & Issuing of Temporary Heating & Cooking Appliances (previously called Loan Appliances).	Measurement & Process
Management Procedure	T/PM/EM/71	2	Jun-04	Transco Management Procedures For Dealing With Gas Escapes And Other Emergencies	Distribution
Management Procedure	T/PM/GDComp/1	2	Oct-04	Management Procedure for The Registration and Qualification requirements for Gas Distribution Assistants	Distribution
Management Procedure	T/PM/GNSP/1	2	May-05	Management Procedure For The Gas Network Safety Passport Within UK Distribution	Distribution
Management Procedure	T/PM/IGE/GL/5	2	Oct-04	Management Procedure For The Application of Of IGE/GL/5 (Plant Modification Procedures (With amendments, January 1999)) By Transco	Measurement & Process
Management Procedure	T/PM/IGE/GL/6	2	Oct-04	Management Procedure For The Application of Of IGE/GL/6 (Non Routine Operations) By Transco	Distribution
Management Procedure	T/PM/IGE/GL/8	2	Dec-04	Management Procedure For The Application of Of IGE/GL/8 (Reporting and Investigation of Gas Related Incidents (with amendments)) By Transco	Health & Safety

Management Procedure	T/PM/IGE/SR/13	2	Oct-04	Management Procedure For The Application of Of IGE/SR/13 (Use of Breathing Apparatus in Gas Transmission and Distribution) By Transco	Health & Safety
Management Procedure	T/PM/IGE/SR/15	2	Dec-04	Management Procedure For The Application of Of IGE/SR/15 Edition 3 (Programmable Equipment in Safety Related Application (With amendments November 2002)) By Transco	Measurement & Process
Management Procedure	T/PM/IGE/SR/18	2	Dec-04	Management Procedure For The Application of Of IGE/SR/18 (Safe Working Practices to Ensure the Integrity of Gas Pipelines and Associated Installations) By Transco	Transmission
Management Procedure	T/PM/IGE/SR/22	2	Oct-04	Management Procedure For The Application of Of IGE/SR/22 Second Impression (Purging Operations for Fuel Gases in Transmission, Distribution and Storage) By Transco	Transmission
Management Procedure	T/PM/IGE/SR/23	2	Oct-04	Management Procedure For The Application of Of IGE/SR/23 Second Impression (Venting of Natural Gas) By Transco	Transmission
Management Procedure	T/PM/IGE/TD/101	2	Oct-04	Management Procedure For The Application of Of IGE/TD/101 (Adoption of Pipe Systems by a GT - Management of UIP Activities) By Transco	Distribution
Management Procedure	T/PM/IGE/TD/15	2	Dec-04	Management Procedure For The Application Of IGE/TD/15 (Services and Metering Installations For A Gas Flow Not Exceeding 6 m3/h At Supplu MOP Exceeding 75 mbar But Not Exceeding 2 bar	Measurement & Process
Management Procedure	T/PM/IGE/TD/3 EDITION 4 Supplement 1	2	Oct-04	Management Procedure For The Application of IGE/TD/3 Edition 4 Supp.1 (Handling, Transport and Storage of PE Pipes and Fittings) By Transco	Distribution
Management Procedure	T/PM/IGE/UP/7	2	Oct-04	Management Procedure For The Application of Of IGE (Gas Installations in Timber Frame Buildings) By Transco	Distribution
Management Procedure	T/PM/LC/21	2	Oct-04	The Management Procedure for Inspection Maintenance and Monitoring of Internal Metallic Supplies to High Rise Buildings	Distribution
Management Procedure	T/PM/M/12	2	Oct-04	Management Procedure for Transco Requirements for the Purging of Installation Pipework When Removing Transco Owned Meters Connected to the Network	Measurement & Process
Management Procedure	T/PM/MSL/1	2	Oct-04	Management Procedure for Mains Laying and Service Laying	Distribution
Management Procedure	T/PM/RE/12	2	Oct-04	Management Procedure for the process Checklists in support of Re Suite of Documents	Planning & Records

Management Procedure	T/PM/RE/2	2	Apr-05	Management Procedure for The Capture of Plant and Equipment Records in Support of T/PL/RE/1	Planning & Records
Management Procedure	T/PM/RE/3	2	Oct-04	Management Procedure For Engineering Drawing Records	Planning & Records
Management Procedure	T/PM/RE/7	2	Oct-04	Management Procedure for Network Pipe Records	Planning & Records
Management Procedure	T/PM/REP/2	2	Oct-04	Management Procedure for Distribution Pipe Replacement	Distribution
Management Procedure	T/PM/SCO/1	2	Mar-05	Management Procedure For Safe Control Of Operations	Distribution
Management Procedure	T/PM/SCO/10	2	Oct-04	Procedure For 7 Barg And Below System - Final Connection Operation - Validating The Competency Of Utility Infrastructure Providers Or Gas Transporter Personnel To Operate As Authorising Engineers And Competent Persons Under Transco's Safe Control Of Operations Procedures.	Distribution
Management Procedure	T/PM/SCO/11	2	Oct-04	Applicant Pack - 7 Barg And Below System - Final Connection Operation - Validating The Competency Of Utility Infrastructure Providers Or Gas Transporter Personnel To Operate As Authorising Engineers And Competent Persons Under Transco's Safe Control Of Operations Procedures.	Distribution
Management Procedure	T/PM/SCO/2	2	Mar-05	Management Procedure For Safe Control Of Operations - Issue Of Permits To Work And Forms Of Authority On The Network	Distribution
Management Procedure	T/PM/SCO/4	2	Mar-05	Management Procedure For Safe Control Of Operations - The Control Of Non-Routine Gas Supply Operations	Distribution
Management Procedure	T/PM/SCO/5	2	Mar-05	Management Procedure For Safe Control Of Operations - The Control Of Routine Gas Supply Operations	Distribution
Management Procedure	T/PM/SCO/7	2	May-05	SAFE CONTROL OF OPERATIONS - SCO/STC MATCHING MATRIX FOR AUTHORISING ENGINEERS AND COMPETENT PERSONS	Distribution
Management Procedure	T/PM/SHE/11	2	Sep-04	Management Procedure For Personal Protective Equipment	Health & Safety
Management Procedure	T/PM/TR/17	2	Oct-04	Management Procedures For Isolation of Above 2 bar Plant and Equipment	Measurement & Process
Management Procedure	T/PR/E3	2	Mar-05*	Procedure for Local Gas Supply Emergency	Distribution

Safety & Engineering Bulletin	SEB 32	2	May-04	Hazard Assessments and Unauthorised Use of Equipment	Distribution
Safety & Engineering Bulletin	SEB 58 Issue 2	2	Oct 04	Use of Holesaws and Taps for Drilling & Tapping Mains	Distribution
Safety & Engineering Bulletin	SEB 59 Issue 2	2	Oct 04	Guidance on the correct use of Jointing Pastes & Compounds	Distribution
Safety & Engineering Bulletin	SGN/SEB 81	2	20/09/2005	Live Service Cut-Offs	Distribution
Safety & Engineering Bulletin	SGN/SEB 85	2	24/11/2005	Breathing Apparatus	Health & Safety
Safety & Engineering Bulletin	SGN/SEB 86	2	24/11/2005	Slips Trips & Falls	Health & Safety
Safety & Engineering Bulletin	SEB 12	2	Aug-02	The Labelling of Gas Services	Measurement & Process
Safety & Engineering Bulletin (Third Party)	3EB1	2	Sep-03	Service Alterations And Disconnections	Distribution
Safety & Engineering Bulletin (Third Party)	3EB2	2	Jan-04	Minimum Excavation Requirements	Distribution
Safety & Engineering Instruction	SEI/176	2	Feb-05	Use Of Electrical Power Cutting Equipment	Distribution
Safety & Engineering Instruction	SGN/SEI/184	2	27/10/2005	Prohibition Of Cast Iron Valves In Steel Pipe Systems	Distribution
Specification	T/SP/C/5	2	Aug-04	Specification for grey cast iron castings supplementary specification to BS1452:1961.	Distribution
Specification	T/SP/C/6	2	Aug-04	Specification for pipe fittings cast in ductile iron.	Distribution
Specification	T/SP/C/8	2	Aug-04	Specification for grey or ductile iron castings for split tee type fittings, including collars, for use at pressures up to 7 bar.	Distribution

Specification	T/SP/C/9	2	Aug-04	Specification for carbon steel castings for pressure purposes above 7 bar (Supplementary to BS 1504).	Distribution
Specification	T/SP/CDO/1 Part 1	2	Apr-05	Specification for Piping, Piping Features and Control Symbology	Planning & Records
Specification	T/SP/CDO/1 Part 3	2	Oct-04	Specification for Pipeline and Mains Records, Maps and Surveys	Planning & Records
Specification	T/SP/CW/4	2	Aug-04	Draft specification for polyethylene cladding on steel pipe.	Distribution
Specification	T/SP/DIS/13.1	2	Oct-04	Specification for Reinstatement of Test Holes	Distribution
Specification	T/SP/E/1	2	Aug-04	Technical specification for combined drilling, tapping and service fitting insertion machines for use up to 2 bar.	Distribution
Specification	T/SP/E/17 Part 2	2	Aug-04	Technical specification for insulation joints	Distribution
Specification	T/SP/E/19	2	Aug-04	Technical specification for primary iris stop bags	Distribution
Specification	T/SP/E/20	2	Aug-04	Technical specification for secondary iris stop bags	Distribution
Specification	T/SP/E/4	2	Aug-04	Technical specification for inflatable, self-centring bag stoppers for use on distribution mains up to and including 300mm/12 in. nominal size.	Distribution
Specification	T/SP/E/41	2	Aug-04	Technical Specification For Road And Pavement Saws	Distribution
Specification	T/SP/E/42	2	Oct-04	Specification for Footway Boards, Ramps & Road Plates	Distribution
Specification	T/SP/E/43	2	Aug-04	Technical Specification For Pneumatic Road Breakers & Tools	Distribution
Specification	T/SP/E/44	2	Aug-04	Technical Specification For Mobile Air Compressors - Twin Tool With 6kw 110v Generator	Distribution
Specification	T/SP/E/45	2	Oct-04	Technical Specification For Vibrotamper	Distribution
Specification	T/SP/E/46	2	Aug-04	Technical Specification For Road Cones, Danger Lamps, Barriers & Signs	Distribution
Specification	T/SP/E/47	2	Aug-04	Technical Specification For Pneumatic Rock Drills	Distribution

Specification	T/SP/E/48	2	Aug-04	Technical Specification For P.E. Service Line Tracing Equipment	Distribution
Specification	T/SP/E/49	2	Aug-04	Technical Specification For P.E. Pipe Coil Trailers	Distribution
Specification	T/SP/E/5	2	Aug-04	Technical specification for pipe cutting wheels (inch dimensions)	Distribution
Specification	T/SP/E/50	2	Aug-04	Technical Specification For Mini-Excavator Trailers	Distribution
Specification	T/SP/E/51	2	Aug-04	Technical Specification For Portable Electric Lighting	Distribution
Specification	T/SP/E/52	2	Aug-04	Technical Specification For Breathing Apparatus	Distribution
Specification	T/SP/E/53	2	Aug-04	Technical Specification For Angle Grinder (Hand Held Disc Cutter)	Distribution
Specification	T/SP/E/54	2	Aug-04	Technical Specification For Disposable Batteries	Distribution
Specification	T/SP/E/55	2	Sep-04	Specification For Bolting, Jointing, Threading And Fasteners For Pressures > 7 Barg.	Transmission
Specification	T/SP/E/8	2	Oct-04	Foam Plug Flow Stop Devices for LP and MP Gas Mains	Distribution
Specification	T/SP/E/8	2	Oct-04	Technical specification for searcher bars	Distribution
Specification	T/SP/ECE/1	2	Aug-04	Specification for electrofusion control boxes	Distribution
Specification	T/SP/ECE/3	2	Jul-04	Specification for transportable electricity generator sets, including generators combined with compressors.	Measurement & Process
Specification	T/SP/EFV/1	2	Aug-04	Technical Specification For Flow Limiters For PE services operating at pressures above 75mbar and not exceeding 2.0 bar and for gas flows not exceeding 6m ³ h-1	Distribution
Specification	T/SP/EL/10	2	Jul-04	Specification for electrical surface heating systems (Complementary specification to BS 6351) (Supersedes TIN 21)	Measurement & Process
Specification	T/SP/EL/13	2	Jul-04	Specification for Earthing	Measurement & Process
Specification	T/SP/EL/19	2	Jul-04	Technical Specification For Electrical Loan Appliances (Temporary Heating & Cooking Appliances)	Distribution

Specification	T/SP/EL/20	2	Oct-04	Specification For The Testing Of Portable Cable & Pipe Detectors For Use Inside Buildings	Measurement & Process
Specification	T/SP/F/10	2	Aug-04	Technical specification for ancillary fittings used for the live insertion of gas mains operating at pressures equal to or less than 75 mbar.	Distribution
Specification	T/SP/F/11	2	Nov-04	Manufacturing Specification For Grouted Tee Connections For Metallic Mains Operating At Pressures Up To 7 Bar	Distribution
Specification	T/SP/F/12	2	Oct-04	Specification For Grouted Tee Connections For Metallic Mains Operating At Pressures Up To 7 Bar	Distribution
Specification	T/SP/F/13	2	Oct-04	Specification for Ductile Iron & Fabricated Steel Cap Ends for Use up to 2bar MOP	Distribution
Specification	T/SP/F/2	2	Aug-04	Technical specification for main sealing plugs and service connection fittings for use at pressures not greater than 2 bar	Distribution
Specification	T/SP/INQ/3	2	Jul-04	Technical specification for portable gas detectors	Measurement & Process
Specification	T/SP/LC/14	2	Aug-04	Technical specification for annular gap sealants	Distribution
Specification	T/SP/LC/25	2	Aug-04	Technical Specification For External Sealant Injection Systems With Improved Resistance To Pipe Movement For Joint Repair On Ferrous Distribution Mains Systems Operating At Pressures Equal To Or Less Than 2 Bar Performance Specification	Distribution
Specification	T/SP/LC/8 Part 1	2	Aug-04	Technical specification for methods of repairing leaking ferrous gas mains Part 1 - External systems (excluding joint and pipe clamps) + Erratum no. 1 (December 1993)	Distribution
Specification	T/SP/LC/8 Part 3	2	Aug-04	Technical specification for methods of repairing leaking ferrous gas mains. Part 3 - Internal sealing methods	Distribution
Specification	T/SP/LC/8 Part 4	2	Oct-04	Specification For Methods Of Repairing Leaking Ferrous Gas Mains Part 4 - Pipe Repair Clamps, Split Collars And Under Pressure Branch Connections	Distribution
Specification	T/SP/LC/9	2	Aug-04	Technical specification for methods of repairing joints on screwed pipework	Distribution
Specification	T/SP/P/1	2	Oct-04	Specification For Welding Of Steel Pipe Operating At Pressures Not Greater Than 7 bar	Distribution

Specification	T/SP/PL/2 Part 1	2	Sep-04	Technical specification for polyethylene pipes and fittings for natural gas and suitable manufactured gas Part 1 - Pipes for use at pressures up to 5.5 bar	Distribution
Specification	T/SP/PL/2 Part 3	2	Aug-04	Technical specification for polyethylene pipes and fittings for natural gas and suitable manufactured gas - Part 3 - Butt fusion tooling and ancillary equipment	Distribution
Specification	T/SP/PL/2 Part 4	2	Sep-04	Technical specification for polyethylene pipes and fittings for natural gas and suitable manufactured gas. Part 4 - Fusion fittings with integral heating element(s)	Distribution
Specification	T/SP/PL/2 Part 5	2	Aug-04	Technical specification for polyethylene pipes and fittings for natural gas and suitable manufactured gas. Part 5 - Electrofusion ancillary tooling	Distribution
Specification	T/SP/PL/2 Part 6	2	Sep-04	Technical specification for polyethylene pipes and fittings for natural gas and suitable manufactured gas Part 6 - Spigot end fittings for electrofusion and/or butt fusion purposes.	Distribution
Specification	T/SP/PL/2 Part 7	2	Sep-04	Technical specification for polyethylene pipes and fittings for natural gas and suitable manufactured gas. Part 7 - Squeeze-off equipment.	Distribution
Specification	T/SP/PL/2 Part 8	2	Aug-04	Technical specification for polyethylene pipes and fittings for natural gas and suitable manufactured gas Part 8 - Pipes for use at pressures up to 7 bar	Distribution
Specification	T/SP/PL/3	2	Oct-04	Self Anchoring Mechanical Fittings for Polyethylene Pipe for Natural Gas and Suitable Manufactured Gas	Distribution
Specification	T/SP/SER/6	2	Oct-04	Specification For Live Riser Transfer Technique - LP Systems	Distribution
Specification	T/SP/SHE/73	2	Oct-04	Specification for Environmental Management System Signpost Document	Environment
Specification	T/SP/SHE/74	2	Oct-04	Specification for NORM Protocol	Environment
Specification	T/SP/SHE/75	2	Oct-04	Specification for Environmental Impact assessment	Environment
Specification	T/SP/SHR/1	2	Jul-04	Specification for handrail structures, platforms etc., for Transco Engineering installations	Transmission
Specification	T/SP/SSW/22	2	Aug-04	Specification For Safe Working In The Vicinity Of Transco High Pressure Gas Pipelines And Associated Installations - Requirements For Third Parties.	Transmission

Specification	T/SP/TE/E1	2	Oct-04	Technical Specification For Electric Drills (Including Rechargeable, 110v, Diamond & Core)	Distribution
Specification	T/SP/TE/E1.1	2	Jul-04	Technical Specification For Portable Isolating Transformers And Extension Leads	Distribution
Specification	T/SP/TE/E1.4	2	Sep-04	Specification for Voltsticks	Distribution
Specification	T/SP/TE/E1.6	2	Oct-04	Specification for Temporary Continuity Bonds (for Mains, Services and Meterwork)	Distribution
Specification	T/SP/TE/E1.7	2	Oct-04	A Tool for the Removal of Caps and Plugs from Live LP Services	Distribution
Specification	T/SP/TE/E1.8	2	Sep-04	Access Tool for Live Entry Into a Low Pressure PE Service	Distribution
Specification	T/SP/TE/E1.9	2	Oct-04	Specification for Live Mains Abandonment Equipment for LP Mains	Distribution
Specification	T/SP/TE/P1	2	Aug-04	Technical Specification For Pipe and Cable locator (Transmitter & Receiver Type)	Distribution
Specification	T/SP/TE/P6.1	2	Sep-04	Specification for Bypass Equipment with integral Pressure Monitoring Points for MP PE Mains	Distribution
Specification	T/SP/V/4	2	Aug-04	Technical specification for service isolation valves up to 50mm diameter nominal bore	Distribution
Work Procedures	D4	3	01/01/2002	Safety At Street works And Road Works - A Code Of Practice (Department of Transport handbook) - Not an SGN document but adopted	Distribution
Work Procedures	T/PR/ASB/2	1	Oct-04	Work Procedure For Undertaking Work On Asbestos Mains	Distribution
Work Procedures	T/PR/D/10	1	Oct-04	Work procedure For Direct Purge Operations on mains in size range 3" / 75mm TO 12" / 315mm diameter	Distribution
Work Procedures	T/PR/D/3	1	Oct-04	Work procedures for inspection and prevention of damage to Transco plant operating at pressures up to 7 bar.	Distribution
Work Procedures	T/PR/D/7	2	Jul-04	Work Procedure for The Internal Inspection Of Gas Mains Using Optical Inspection Systems Including Closed Circuit Television (CCTV) Systems	Distribution
Work Procedures	T/PR/D/8	1	Mar-04	Work Procedure For Backfeed / Service Location By Using Remote Bag Inflation	Distribution
Work Procedures	T/PR/DIS/3.1.1	2	Oct-04	Work Procedure For The Use Of Breathing Apparatus	Distribution

Work Procedures	T/PR/DIS/5.10.1	1	Oct-04	Work Procedure For Service Entries For Multi Storey Premises	Distribution
Work Procedures	T/PR/DIS/5.18	1	Sep-04	Work Procedure For The Use Of Large Diameter Electrofusion Couplers (400 mm to 630 mm)	Distribution
Work Procedures	T/PR/DIS/5.19	1	Oct-04	Work Procedure For Low Pressure Live Mains Transfer Up To 6" Diameter	Distribution
Work Procedures	T/PR/DIS/5.51	1	Oct-04	Work Procedure - Pressure Testing - Hydrostatic And Advanced (Acoustic) Pressure Testing Of Medium And Intermediate Pressure Gas Mains And Services, And Pressure Testing Service Risers Supplying More Than Two Emergency Control Valves Operating At Low Pressure	Distribution
Work Procedures	T/PR/DIS/8.6.1	1	Oct-04	Engineering Procedures. Section 8 - Tools and equipment. Subsection 8.6 - Flow stopping equipment - operation and maintenance. Module 8.6.1 - Iris stop operations	Distribution
Work Procedures	T/PR/DIS/8.6.3.1	1	Oct-04	Work Procedures For Section 8 - Tools And Equipment - Subsection 8.6 - Flow Stopping Equipment - Operation And Maintenance - Module 8.6.3.1 - Foam Plugging Operations In Metallic Pipes - For Low Pressure Mains 12" To 36" Diameter And For Medium Pressure Mains 4" To 36" Diameter	Distribution
Work Procedures	T/PR/DP/2	1	Oct-04	The Investigation of Unidentified Exposed Pipes	Distribution
Work Procedures	T/PR/EL/22	1	Oct-04	Work Procedure for Electrical Safety and Issuing of Temporary Heating and Cooking Appliances	Measurement & Process
Work Procedures	T/PR/Maint/5028	1	Oct-04	Work Procedure for The Supervision of Mechanical Excavations Within 3 Metres of HP Pipelines (7 bar and above)	Transmission
Work Procedures	T/PR/ML/1	1	Jul-04	Work Procedure For Pipe System Construction - Module 1 - General Requirements	Distribution
Work Procedures	T/PR/ML/2	1	Jul-04	Work Procedure For Pipe System Construction - Module 2 - PE Main Laying up to and including 180mm diameter at pressures up to and including 2 bar	Distribution

Work Procedures	T/PR/ML/3	1	Jun-04	Work Procedure For Pipe System Construction - Module 2 - PE Main Laying up to and including 355mm at pressures up to and including 2 bar	Distribution
Work Procedures	T/PR/ML/4	1	May-04	Work Procedure For Pipe System Construction - Module 4 - PE Main Laying up to and including 630mm diameter at pressures up to and including 2 bar	Distribution
Work Procedures	T/PR/QA/3	1	Oct-04	Work Procedure For Quality Assurance Inspections	Assurance
Work Procedures	T/PR/SL/1	1	Jul-04	Work procedure for service laying Up to and including 63mm diameter at pressures up to and including 2 bar	Distribution
Work Procedures	T/PR/SW/1	2	Oct-04	Work procedure For Excavations	Distribution
Work Procedures	T/PR/TE/A1.1	2	Oct-04	Work Procedure for Angle Grinders (Hand Held Disc Cutters)	Distribution
Work Procedures	T/PR/TE/C3.1	2	Apr-04	Work Procedure For Use Of Vibrotampers	Distribution
Work Procedures	T/PR/TE/D1.1	2	Oct-04	Workshop Maintenance Procedure for Teeset Drilling and Tapping Machines	Distribution
Work Procedures	T/PR/TE/E1.2	2	May-04	Work Procedure for use of Electric Drills	Distribution
Work Procedures	T/PR/TE/E1.3	2	Sep-04	Work Procedure for Portable Isolating Transformers and Extension Leads	Distribution
Work Procedures	T/PR/TE/E1.5	2	Oct-04	Workshop Maintenance Procedure for Temporary Continuity Bonds	Distribution
Work Procedures	T/PR/TE/H1.1	2	Nov-04	Work Procedure For Cap And Plug Exchange Tool (CaPEX)	Distribution
Work Procedures	T/PR/TE/H1.2	2	Sep-04	Work Procedure for The use of Impact Searcher Bars	Distribution
Work Procedures	T/PR/TE/P1.1	2	Apr-04	Work Procedure For The Use Of Radiodetection Cat & Genny Locator	Distribution
Work Procedures	T/PR/TE/P1.2	2	Nov-04	Work Procedure For The Stargland System	Distribution
Work Procedures	T/PR/TE/P4.1	2	May-05	Work Procedure For The Use Of Pneumatic Road Breakers	Distribution
Work Procedures	T/PR/TE/P4.2	2	Apr-04	Work Procedure For The Use Of Pneumatic Rock Drills	Distribution

Work Procedures	T/PR/TE/P4.3	2	Oct-04	Work Procedure for Use of Pneumatic Service Pipe Cleaner	Distribution
Work Procedures	T/PR/TE/P4.4	2	Oct-04	Work Procedure for Use of Pneumatic Hacksaw	Distribution
Work Procedures	T/PR/TE/P6.2	2	Oct-04	Work Procedure for the use of mini-excavators & trailers	Distribution
Work Procedures	T/PR/TE/R1.1	2	Oct-04	Work procedure for the use of Footway boards, Ramps & Road Plates	Distribution
Work Procedures	T/PR/TE/R2.1	2	Oct-04	Work Procedure for the Use of Road & Pavement Saws	Distribution
Work Procedures	T/PR/HAZ/1	1	Jan-06	ATEX/DSEAR Assessment For Meter Installations With Inlet Pressures Not Exceeding 7 Bar	

IGEM Technical Publications

ITEM and EDITION	TITLE	DATE
IGE/TD/3 Ed 4	Steel and PE pipelines for gas distribution (add Amendments) (1677)	2003
IGE/TD/3 Ed 4 Supplement 1	Handling, transport and storage of PE pipe and fittings (1682)	2003
IGE/TD/4 Ed 3	Gas services (1562)	1994
IGE/G/5 Publication due Feb 2006	Gas installations in multi-occupancy, multi-dwelling buildings (1712)	2005
IGE/GL/5 Ed 2	Procedures for managing new works, modifications and repairs (1715)	2005
IGE/GL/6	Non-routine operations (1631)	1996
IGE/SR/24	Risk assessment techniques (1655)	1999

Advantica Documents

ITEM and EDITION	TITLE	DATE
PL2/E Part 1	Polyethylene pipes and fittings for natural gas and suitable manufactured gas pipes for use at pressures up to 5.5 bar	2004
PL2/E Part 3	Polyethylene pipes and fittings for natural gas and suitable manufactured gas butt fusion tooling and ancillary equipment	2004
PL2/E Part 4	Polyethylene pipes and fittings for natural gas and suitable manufactured gas fusion fittings with integral heating element(s)	2004
PL2/E Part 5	Polyethylene pipes and fittings for natural gas and suitable manufactured gas electrofusion ancillary tooling	2004
PL2/E Part 6	Polyethylene pipes and fittings for natural gas and suitable manufactured gas spigot end fittings for electrofusion and/or butt fusion purposes	2004

Advantica Documents (continued)

ITEM and EDITION	TITLE	DATE
PL2/E Part 7	Polyethylene pipes and fittings for natural gas and suitable manufactured gas squeeze off equipment	2004
PL2/E Part 8	Polyethylene pipes and fittings for natural gas and suitable manufactured gas pipes for use at pressures up to 7 bar	2004
PL3/E	Self anchoring mechanical fittings for polyethylene pipe for natural gas and suitable manufactured gas	2002
PT1/E	Pressure testing pipework installations	2002
V7/E Part 1	Technical specification for distribution valves Metal bodied line valves for use at pressures up to 16 bar and construction valves for use at pressures up to 7 bar	2002
V7/E Part 2	Technical specification for distribution valves Plastic bodied valves of sizes up to 63 mm suitable for operations at pressures not exceeding 5.5 bar	2002
DAT39/E	Refurbishment of butt fusion machines	2002

APPENDIX B

**UTILITIES SPECIFICATIONS (DETAILS OF REPLACEMENT PIPES, DUCTS,
THRUST BLOCK SIZES AND CHAMBERS)**

**Table
B:1
Scottish Power**

Duct Size and specifications

Category	Description	Type	Joint Bay Dimensions (mm LxWxD)
1	LV x1	LV	1200x900x700
2	LV x2	Pilot/Comms, LV	1200x900x700
3	LV x3	Pilot, Pilot, LV	1200x900x700
4	HV x1	6.6 KV	2000x1100x900
5	HV x1 LV x1	Pilot, 6.6 KV	2000x1100x900
6	HV x1 LV x1	Pilot, 11 KV	2000x1100x900
7	HV x1 LV x1	11 KV, LV	2000x1100x900
8	HV x2	11 KV, 11KV	2000x1100x900
9	LV x2 HV x1	Pilot, 11 KV, LV	2000x1100x900
10	LV x1 HV x1	Pilot, 33 KV	2000x1100x1400
11	LV x1 HV x1	33 KV, LV	2000x1100x1400
12	LV x2 HV x1	Pilot, 33KV, LV	2000x1100x1400
13	LV x1 HV x2	Pilot, 33KV, 11KV	2000x1100x1400
	EHV	275 KV Transmission	-

Cable type	Min dia of ducts	Material
33kV	150 or 100	PE
11kV	100	PE
LV	100	PE

**Table B:2
Scotland Gas
Networks**

**Gas Main Replacements and
Specifications**

Existing Pipe		Replacement Pipe	
Dia (mm)	Material	Dia (mm)	Material
75	IRON	90	PE
150	IRON	180	PE
200	IRON	250	PE
225	IRON	250	PE
250	IRON	315	PE
300	IRON	355	PE
350	IRON	400	PE
400	IRON	469	PE
450	IRON	500	PE
500	IRON	600	PE
600	IRON	600	PE
1200	IRON	1200	DI
63	PE	63	PE
90	PE	90	PE
125	PE	125	PE
180	PE	180	PE
200	PE	200	PE
250	PE	250	PE
315	PE	315	PE
355	PE	355	PE
400	PE	400	PE
500	PE	500	PE
469	PE	500	PE
500	PE	500	PE
469	PE	469	PE
500	PE	500	PE
500	PE	500	PE
600	PE	600	PE
400	PE	400	PE
495	PE	500	PE
500	PE	500	PE
450	STEEL	450	STEEL
450	STEEL	450	STEEL

BT**Table B3****Telecommunication Specifications***(extracted from BT standards)*

Duct Type	Duct Section Length / Diameter
PVC Duct 54D	6m x 90mm dia
PVC Duct 56	3m x 49mm dia
Polyethylene Duct 102	150m x 27mm dia

Table B3.1

Duct Type	Std depth of cover	
	Footpath (mm)	Crossing Carriageway (mm)
Type of Duct / Cable		
PVC 2way duct	350	600
PVC Multiway duct (3 to 20way duct)	450	600
PVC Multiway duct (over 20way duct)	600	900
PVC	350	600
Steel	350 or as req'd by BT	600 or as req'd by BT
Polyethylene	350	600
Duct on cultivated ground or gardens	450	
Polyethylene cable direct in ground	450 or as req'd by BT	600 or as req'd by BT

Table B3.2

Telecommunications - Types of jointing chambers		
Manhole	Chamber Internal Dimensions	
	Length (mm)	Width (mm)
MRX401	1800	1200
MRX402	3500	1200
MRX404	2400	1200
MRX405	4000	1650
MRX410	3100	1700
MRX411	4900	2300
MRX412	3700	2800
MRX413	3700	2000
MRX509	2400	1700
MRX510	2900	2300
MRX511	3700	2700
MRX512	3400	3400
MRX513	3400	2400
MRX607	2480	2150
MRX608	3800	2700
MRX610	4700	3700
MRX611	3700	3400
MRX612	5000	2500
MRX613	3800	2450
MRX810	4400	2100
SIDESHAFT	10000 max	1000
ACCESS & CABLE SHAFT	3000 max	610

Table B:4**Scottish Water - Clean****Water Main Specifications**

Existing Pipe			Replacement Pipe		Other
DIA (mm)	Material	Purpose	DIA (mm)	Material	STD 90deg* Thrust Block
63		distribution mains	63	Plastic	none
75	cast iron	distribution mains	90	Plastic	none
100	cast iron	distribution mains	125	Plastic	0.2m ³ - 600mm cover
125	cast iron	distribution mains	180	Plastic	0.43m ³ - 600mm cover
150	cast iron	distribution mains	180	Plastic	0.43m ³ - 600mm cover
175	cast iron	distribution mains	250	Plastic	0.76m ³ - 600mm cover
150	plastic	distribution mains	180	Plastic	0.43m ³ - 600mm cover
250	ductile iron	Trunk Mains	250	Ductile Iron	4.95m ³ - 600mm cover
300	ductile iron	Trunk Mains	300	Ductile Iron	6.9m ³ - 600mm cover
450	ductile iron	Trunk Mains	450	Ductile Iron	11.5m ³ - 600mm cover
225	cast iron	Trunk Mains	250	Plastic	1.3m ³ - 600mm cover
300	cast iron	Trunk Mains	300	Ductile Iron	3.2m ³ - 600mm cover
350	cast iron	Trunk Mains	350	Ductile Iron	4.95m ³ - 600mm cover
375	cast iron	Trunk Mains	375	Ductile Iron	6.9m ³ - 600mm cover
400	cast iron	Trunk Mains	400	Ductile Iron	6.9m ³ - 600mm cover
450	cast iron	Trunk Mains	450	Ductile Iron	11.5m ³ - 600mm cover

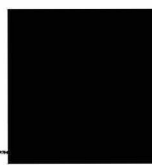
**Table
B:5
Scottish Water -
Sewers**

**Sewer Main
Specifications**

Existing Sewer		New			Other
DIA (mm)	Material	DIA (mm)	Material	Specification	Manhole (DIA governed by largest pipe DIA) Depth Range Etc*
150	VC	150	VC	Must comply with Sewers for Scotland 1 st Edition	Sewers for Scotland 1st Edition - Fig 1 Typical Manhole Detail Type A/B
225	VC	225	VC	Must comply with Sewers for Scotland 1 st Edition	Sewers for Scotland 1st Edition - Fig 1 Typical Manhole Detail Type A/B
300	VC	300	Concrete	Must comply with Sewers for Scotland 1 st Edition	Sewers for Scotland 1st Edition - Fig 1 Typical Manhole Detail Type A/B
355	VC	375	Concrete	Must comply with Sewers for Scotland 1 st Edition	Sewers for Scotland 1st Edition - Fig 1 Typical Manhole Detail Type A/B
375	VC	375	Concrete	Must comply with Sewers for Scotland 1 st Edition	Sewers for Scotland 1st Edition - Fig 1 Typical Manhole Detail Type A/B
300	Concrete	300	Concrete	Must comply with Sewers for Scotland 1 st Edition	Sewers for Scotland 1st Edition - Fig 1 Typical Manhole Detail Type A/B
375	Concrete	375	Concrete	Must comply with Sewers for Scotland 1 st Edition	Sewers for Scotland 1st Edition - Fig 1 Typical Manhole Detail Type A/B
420	Concrete	450	Concrete	Must comply with Sewers for Scotland 1 st Edition	Sewers for Scotland 1st Edition - Fig 1 Typical Manhole Detail Type A/B



Director/Authorised Signatory
TIE LIMITED



Director/Authorised Signatory
Alfred McAlpine Infrastructure Services
Limited

**THIS IS SCHEDULE 4 REFERRED TO IN THE FOREGOING AGREEMENT
BETWEEN TIE AND THE MUDFA CONTRACTOR**

SCHEDULE 4

BILLS OF QUANTITIES

**THIS IS SCHEDULE 5 REFERRED TO IN THE FOREGOING AGREEMENT
BETWEEN TIE AND THE MUDFA CONTRACTOR**

SCHEDULE 5

REVIEW PROCEDURE

1. Introduction

- 1.1 Except where otherwise agreed in writing, the provisions of this Schedule 5 (*Review Procedure*) shall apply whenever any Deliverable or course of action is required to be reviewed, approved, agreed, consented to or otherwise processed in accordance with the Agreement.
- 1.2 Each submission by the MUDFA Contractor to **tie's** Representative under the Review Procedure shall be accompanied by five copies of the proposed Deliverable (in appropriate agreed format) to be reviewed or a statement of the proposed course of action (the entire contents of a submission being referred to as a "Submitted Item"). In relation to each Submitted Item, the provisions of this Schedule 5 (*Review Procedure*) shall apply.
- 1.3 Within 5 Business Days of the date of receipt of a submission (or re-submission, as the case may be) of the Submitted Item to **tie's** Representative (or such other period as the Parties may agree), **tie's** Representative shall return one copy of the relevant Submitted Item to the MUDFA Contractor endorsed (subject to and in accordance with paragraph 3 (*Grounds of Objection*)) "Level A - no objection", "Level B - proceed subject to comments" or "Level C - resubmit".
- 1.4 If **tie's** Representative fails to return a copy of any Submitted Item within 5 Business Days (or within such other period as the Parties may agree in writing) of the date of its submission to **tie's** Representative, then the MUDFA Contractor shall re-submit the submitted item, stating that it is a resubmitted item. If **tie's** Representative fails to return a copy of any Submitted Item within 5 Business Days of any submission, then **tie's** Representative shall be deemed to have returned the Submitted Item to the MUDFA Contractor endorsed "Level A - no objection".
- 1.5 If **tie's** Representative makes an objection to any Submitted Item in accordance with paragraph 3 (*Grounds of Objection*), **tie's** Representative shall state the ground upon which such objection is based and the evidence or other information necessary to substantiate that ground.

- 1.6 For the avoidance of doubt, **tie's** Representative shall be entitled to make such comments on any Submitted Item on any grounds as he sees fit but, to the extent that **tie's** Representative comments on a Submitted Item other than on the grounds specified in paragraph 3 (*Grounds of Objection*), or fails to comply with the provisions of this paragraph 1, the MUDFA Contractor may, at its discretion request written clarification of the basis for such comments and, if clarification is not received within 5 Business Days of such request by the MUDFA Contractor refer the matter for determination in accordance with the Dispute Resolution Procedure.
- 1.7 Where any information that has been provided is updated, the new issues shall be provided promptly to **tie** as soon as reasonably possible.
- 1.8 **tie's** Representative shall be entitled to instruct the MUDFA Contractor that a defined class of Deliverable or course of action may be submitted "for information" and not for review in accordance with this Schedule 5 (*Review Procedure*).
- 1.9 The MUDFA Contractor shall ensure that each Submitted Item shall contain sufficient detail and shall be accompanied by sufficient information to enable **tie's** Representative to assess the Submitted Item in accordance with this Schedule 5 (*Review Procedure*).
- 1.10 Where a revised Submitted Item is submitted, the MUDFA Contractor shall also ensure that such revision clearly identifies what revision to the Deliverable was made.

2. Further Information

- 2.1 The MUDFA Contractor shall submit any further or other information, data and documents that **tie's** Representative reasonably requires to act in accordance with this Schedule 5 (*Review Procedure*). If the MUDFA Contractor does not submit any such information, data and documents, **tie's** Representative shall be entitled to object to the Submitted Item:
- 2.1.1 on the basis of the information, data and documents which have been provided; or
- 2.1.2 on the grounds that insufficient information, data and documents have been provided to enable **tie's** Representative to act in accordance with this Schedule 5 (*Review Procedure*).

3. Grounds of Objection

- 3.1 **tie's** Representative may object to any Submitted Item on the grounds set out in paragraph 2 (*Further Information*) above but otherwise may make objections in relation to a Submitted Item if, on the balance of probabilities, implementation of that Submitted Item:
- 3.1.1 would not be in accordance with this Agreement; and/or
 - 3.1.2 would result in an increase to **tie's** liabilities or potential or contingent liabilities under this Agreement; and/or
 - 3.1.3 would be inefficient as to expenditure of resource/costs; and/or
 - 3.1.4 would lead to a health and safety risk to any person or property; and/or
 - 3.1.5 would lead to a breach of any Law, any Consent or the terms of any Land Consent; and/or
 - 3.1.6 would necessitate the obtaining of a new Law or the obtaining of a variation to an existing Law; and/or
 - 3.1.7 would not be in accordance with any relevant environmental requirements; and/or
 - 3.1.8 would not be in accordance with Schedule 3 (*Specification*) and/or Schedule 2 (*Technical Requirements*); and/or
 - 3.1.9 would materially adversely affect the MUDFA Contractor's ability to perform its obligations under this Agreement; and/or
 - 3.1.10 would materially adversely affect **tie's** ability to perform its obligations or enforce its rights under this Agreement; and/or
 - 3.1.11 is not in accordance with the MUDFA Contractor's quality plans; and/or
 - 3.1.12 would not be in accordance with Good Industry Practice.

4. Effect of Review

- 4.1 Any Submitted Item which is returned or deemed pursuant to paragraph 1.4 to have been returned by **tie's** Representative endorsed "Level A - no objection" shall be complied with and implemented by the MUDFA Contractor.
- 4.2 If **tie's** Representative returns the Submitted Item endorsed other than "Level A - no objection", the MUDFA Contractor shall:

- 4.2.1 where **tie's** Representative has endorsed the Submitted Item "Level B - proceed subject to comments", proceed with the performance of the MUDFA Works in accordance with the Programme but acknowledge and take into account **tie's** Representative's comments;
- 4.2.2 where **tie's** Representative has endorsed the Submitted Item "Level C - resubmit", not act upon the Submitted Item, amend the Submitted Item to respond to **tie's** Representative's objections and requirements, and re-submit the same to **tie's** Representative in accordance with paragraph 4.3 unless the MUDFA Contractor disputes that any such objection or proposed requirement is on grounds permitted by this Agreement, in which case the MUDFA Contractor or **tie's** Representative may refer the matter for determination in accordance with the Dispute Resolution Procedure and the MUDFA Contractor shall not act on the Submitted Item until such matter is so determined or otherwise agreed provided that any referral to the Dispute Resolution Procedure is at the risk of the MUDFA Contractor.
- 4.3 Where the Submitted Item has been endorsed "Level C", the MUDFA Contractor shall within 5 Business Days of receiving the returned Submitted Item, resubmit the Submitted Item as amended to **tie's** Representative and the provisions of paragraphs 1.2 to 4 of this Schedule 5 (*Review Procedure*) shall apply (*mutatis mutandis*) to such re-submission.
- 4.4 The return or deemed return of any Submitted Item endorsed "Level A - no objection" or otherwise endorsed in accordance with paragraph 4.2.1 ("Level B" - proceed subject to comments) shall mean that the relevant Submitted Item may be used or implemented (subject to any comments made in accordance with paragraph 4.2.1) for the purposes for which it is intended. However, the return or deemed return of any Submitted Item howsoever endorsed shall not:
- 4.4.1 relieve the MUDFA Contractor of its obligations under this Agreement; nor
- 4.4.2 constitute an acknowledgement, admission or acceptance by **tie** that the MUDFA Contractor has complied with such obligations.

5. Disclaimer

- 5.1 No review, objection, comment or silence by **tie** shall operate to (i) exclude or limit the MUDFA Contractor's obligations or liabilities under this Agreement (or **tie's**

rights under this Agreement) or (ii) fix **tie** with any express or implied obligations, duties or liabilities with respect to the Submitted Item.

5.2 For the avoidance of doubt, this information is supplementary to information required to be produced by the MUDFA Contractor in order to satisfy the approval requirements of and Consents from other third parties and Approval Bodies. These include those required for:

5.2.1 CEC in its capacity as planning authority, roads authority and authority responsible for environmental health matters;

5.2.2 the Utilities; and

5.2.3 the Scottish Executive.

5.3 The MUDFA Contractor shall promptly provide copies of all such submissions to **tie** together with the responses to them as a matter of routine.

6. Documentation Format and Management

6.1 The MUDFA Contractor shall issue five copies (in appropriate agreed format) of all Submitted Items to **tie** and compile and maintain a register of the date and contents of the submission for each Submitted Item.

6.2 The MUDFA Contractor shall compile and maintain a register of the date of receipt and content of all Submitted Items that are returned or deemed to be returned by **tie's** Representative.

6.3 All drawings shall be presented as A3 sized paper copies and drawings shall be prepared at their original size in a manner that allows them to be readily legible when reduced to A3 size. Original drawings shall not be greater than A0 in size.


7. Variations

7.1 No review, objection or comment or any failure to make objection or comment under this Schedule 5 (*Review Procedure*) by **tie** shall constitute a **tie** Change


7.2 If, having received comments from **tie's** Representative, the MUDFA Contractor considers that compliance with those comments would amount to a **tie** Change, the MUDFA Contractor shall within 5 Business Days of any comments being received, before complying with the comments, notify **tie** of the same and, if it is agreed by the parties or determined pursuant to the Dispute Resolution Procedure that a **tie** Change

would arise if the comments were complied with, **tie** may proceed with the matter in accordance with Clause 46 (*Changes*)

- 7.3 Any failure by the MUDFA Contractor to notify **tie** within 5 Business Days of comments being received that it considers compliance with such comments of **tie's** Representative would amount to a **tie** Change shall constitute an irrevocable acceptance by the MUDFA Contractor that any compliance with **tie's** comments shall be without cost to **tie** and without any entitlement to any extension of time or other relief.



Director/Authorised Signatory
TIE LIMITED



Director/Authorised Signatory
**ALFRED McALPINE INFRASTRUCTURE
SERVICES LIMITED**

**THIS IS SCHEDULE 6 REFERRED TO IN THE FOREGOING AGREEMENT
BETWEEN TIE AND THE MUDFA CONTRACTOR**

SCHEDULE 6

SUB-CONTRACTOR COLLATERAL WARRANTY

(1) [SUB-CONTRACTOR]

- and -

(2) [tie LIMITED] or [OTHER THIRD PARTY BENEFICIARY]

- and -

(3) [MUDFA CONTRACTOR]

**COLLATERAL WARRANTY IN
FAVOUR OF [[tie LIMITED] or [OTHER
THIRD PARTY BENEFICIARY] FROM
[SUB-CONTRACTOR]
relating to
THE PROVISION OF MULTI-UTILITIES
DIVERSION FRAMEWORK WORKS
FOR THE EDINBURGH TRAM
NETWORK**

AGREEMENT

BETWEEN

- (1) [**SUB-CONTRACTOR**] [(company number [◆]) whose registered office is at [◆]] *OR* [carrying on business together in partnership under the name of [◆] at [◆]] ("**Sub-Contractor**");
- (2) [[**tie LIMITED** (Company Number SC230949) whose registered office is at City Chambers, High Street, Edinburgh, Midlothian, EH1 1YJ] *OR* [[**Other third party beneficiary**] [(company number [◆]) whose registered office is at [◆]] *OR* [carrying on business together in partnership under the name of [◆] at [◆]]] ("**Beneficiary**") which expression shall include its successors and permitted assignees.; and
- (3) [**MUDFA CONTRACTOR**] (company number [◆]) whose registered office is at [◆] ("**MUDFA Contractor**").

BACKGROUND

- A By an agreement in writing dated [◆] (the "**MUDFA**"), **tie** appointed the MUDFA Contractor to provide multi-utilities diversion framework works in connection with the Edinburgh Tram Network.
- B It is a term of the MUDFA that the MUDFA Contractor shall procure that the Sub-Contractor enter into this Agreement with the Beneficiary.
- C The Sub-Contractor has been appointed by the MUDFA Contractor as [◆] in terms of the Sub-Contract (as hereinafter defined).
- D It is a term of the Sub-Contract or has otherwise been agreed that the Sub-Contractor enters into this Agreement with the Beneficiary in relation to the Sub-Contract Works.

IT IS AGREED as follows:

1. DEFINITIONS AND INTERPRETATION

In this Agreement:

- 1.1 the following words and expressions have the following meanings, unless the context requires otherwise:

"Agreement" means this document (as amended from time to time pursuant to clause 13);

"Edinburgh Tram Network" means Line One and Line Two of the Edinburgh Tram Network as described in the Tram Legislation, and as may be amended from time to time together with any modification, line extension, spur, interconnection, and any additional line;

"Good Industry Practice" means using standards, practices, methods and procedures conforming to law and exercising that degree of skill, care, diligence, prudence and foresight that would reasonably be expected from a large, reputable, professionally qualified, competent and skilled organisation experienced in carrying out activities of a similar nature, scope and complexity to those comprised in the Sub-Contract Works, and seeking in good faith to comply with its contractual obligations and all duties owed by it;

"Insurance Period" means the period of 12 years from the date of issue of the last certificate of substantial completion in respect of the Sub-Contract Works, as established pursuant to and for the purposes of the Sub-Contract (or, if sooner, 12 years after termination of the employment of the Sub-Contractor under the Sub-Contract);

"Intellectual Property Rights" means any rights in or to any patent, design right, utility model, trade mark, brand name, service mark, trade name, business name, logo, invention (whether registered or unregistered), domain name, semi-conductor right, topography right, software designs and/or other materials, source code, copyright, moral right, know-how, or rights in databases and any other rights in respect of any industrial or intellectual property, whether capable of being registered or not, including all rights to apply for any of the foregoing rights or for an extension, revival or renewal of any of the foregoing rights and any similar or analogous rights to any of the above, whether arising or granted under the law of Scotland or of any other jurisdiction;

"Party" means each and any of the parties to this Agreement and Parties shall be construed accordingly;

"Statutory Requirements" means all general or local Acts of Parliament and the regulations and Bye-laws of any local or other statutory authority which may be applicable to the Sub-Contract Works, together with any accompanying code of

practice or guidance, and the rules and regulations of all public bodies and companies whose property or rights are or may be affected in any way by the Sub-Contract Works;

"Sub-Contract" means the sub-contract dated [◆] made between the MUDFA Contractor and the Sub-Contractor;

"Sub-Contract Works" means the works and services to be undertaken by the Sub-Contractor under the Sub-Contract;

"Sub-Contractor Deliverables" means all documents, information, reports, diagrams, records, method statements, risk assessments, manuals, schedules, databases, photographs, formulae, plans, designs, specifications, drawings, details, calculations, models and simulations, the outputs and reports based on any models, programmes and all other material created and/or provided by the Sub-Contractor (or any other third party) in the performance of the Sub-Contract Works and the Sub-Contractor's obligations under the Sub-Contract;

"TEL" means Transport Edinburgh Limited a company incorporated under the Companies Act with registered number SC269639 and having its registered office at 55 Annandale Street, Edinburgh, Midlothian EH7 4AZ which shall include its successors in title and permitted assignees;

"Tram Legislation" means the Edinburgh Tram (Line One) Act 2006 and the Edinburgh Tram (Line Two) Act 2006 and such other legislation relative to the Edinburgh Tram Network as may be enacted from time to time; and

1.2 unless the context requires otherwise:

1.2.1 words importing:

1.2.1.1 the singular include the plural and vice versa; and

1.2.1.2 one gender include all other genders.

1.2.2 a reference to:

1.2.2.1 persons includes firms, companies, corporations, partnerships, trusts, authorities and other incorporated and/or unincorporated bodies; and

1.2.2.2 a clause is a reference to a clause in this Agreement.

1.3 The list of contents and clause headings in this Agreement are included for convenience only and do not affect its interpretation.

1.4 Where a party comprises two or more persons:

1.4.1 any obligations on the part of that party contained or implied in this agreement are deemed to be joint and several obligations on the part of those persons; and

1.4.2 references to that party shall include references to each and any of those persons.

2. STANDARD OF CARE

2.1 The Sub-Contractor warrants and undertakes to the Beneficiary that it has carried out and shall carry out the Sub-Contract Works and its other duties and obligations under the Sub-Contract subject to and in accordance with the terms thereof.

2.2 In addition to and without derogation from clause 2.1, the Sub-Contractor warrants to the Beneficiary that:

2.2.1 in the performance of the Sub-Contract Works and its other obligations under the Sub-Contract it shall exercise a reasonable level of professional skill, care and diligence to be expected of a properly qualified and competent contractor experienced in carrying out works and services similar to the Sub-Contract Works in connection with projects of a similar type, nature and complexity;

2.2.2 any design produced by the Sub-Contractor will satisfy in every respect any relevant performance specification or any requirement included or referred to in the Sub-Contract and will be suitable in every respect for the purposes included in or reasonably to be inferred from the Sub-Contract; and

2.2.3 any design produced by the Sub-Contractor will fully comply with Statutory Requirements.

2.3 The Sub-Contractor shall owe a duty of care to the Beneficiary in carrying out its duties and obligations under the Sub-Contract.

3. MATERIALS

3.1 Without prejudice to the generality of Clause 2.1 hereof, the Sub-Contractor warrants that to the extent that the Sub-Contractor is required to do so under the Sub Contract, the Sub-Contractor has exercised and will continue to use its reasonable endeavours to see that, unless otherwise authorised by the MUDFA Contractor in writing, no materials have been used or will be specified by the Sub-Contractor for use in connection with the Sub Contract Works which:

3.1.1 are known to be deleterious in the particular circumstances in which they are used (either to health and safety or to the durability of any works on which the Sub-Contractor is employed by the MUDFA Contractor); or

3.1.2 contravene any relevant standard or code of practice issued from time to time by the BSI Group or under a European directive relating to standards; or

3.1.3 do not accord with the guidelines contained in the edition of the publication "Good Practice in Selection of Construction Materials" (Ove Arup & Partners) current at the date of specification of use; or

3.1.4 contravene Good Industry Practice.

4. COPYRIGHT LICENCE

4.1 The Sub-Contractor hereby grants to the Beneficiary an irrevocable, perpetual, royalty-free and non-exclusive licence to use such Intellectual Property Rights in the Sub-Contractor Deliverables as may be necessary for the Beneficiary to use in relation to the [[Edinburgh Tram Network] **OR** [*Where beneficiary is not tie an appropriate use should be included*]]. This licence shall carry the right to grant sub-licences, and be freely transferable to third parties.

4.2 In so far as ownership of the copyright and any other Intellectual Property Rights in any Sub-Contractor Deliverable prepared or provided by the Sub-Contractor in connection with the Edinburgh Tram Network is vested in any person other than the Sub-Contractor, the Sub-Contractor shall procure for the Beneficiary the benefit of such a licence as is referred to in clause 4.1 for the purposes referred to therein.

4.3 The Sub-Contractor shall, if so requested at any time, execute such documents and perform such acts as may be required fully and effectively to assure to the Beneficiary or any third party the rights referred to in this clause 4.

4.4 The Sub-Contractor shall provide to the Beneficiary a copy of any of the Sub-Contractor Deliverables as soon as reasonably practicable after receipt by the Sub-Contractor of a written request from the Beneficiary to do so.

4.5 The Sub-Contractor undertakes to the Beneficiary that the use by the Beneficiary of any of the Sub-Contractor Deliverables for any purpose provided for in this clause 4 shall not infringe the rights of any third party in relation to the Sub-Contractor Deliverables.

5. REQUIRED INSURANCES

5.1 The Sub-Contractor undertakes that:

5.1.1 it has maintained and shall maintain during the performance of its obligations under the Sub-Contract and the Insurance Period each of the insurances as follows:

[5.1.1.1 professional indemnity insurance with an insurer authorised to carry out insurance business in the United Kingdom for an amount not less than £[◆] on an each and every claim basis and £[◆] on an aggregate basis in respect of pollution and contamination claims and date recognition claims, in respect of the legal liability of the Sub-Contractor as a result of any negligent act, error or omission in the performance of the professional activities and duties in connection with the Sub-Contract Works and in the performance of its obligations under the Sub-Contract; and][*Not required in respect of Collateral Warranty from Doocey Limited.*]

5.1.1.2 [◆] [*Detail any further insurances held by the Sub-Contractor*]

5.1.2 cover under the professional indemnity insurance is extended to include the Sub-Contractor's liabilities under this Agreement;

5.1.3 this Agreement has been disclosed to the Sub-Contractor's current professional indemnity insurers or brokers (as the case may be) and shall be disclosed to any future professional indemnity insurers or brokers providing the insurance required by this Agreement; and

- 5.1.4 the Sub-Contractor shall abide by the terms and conditions of insurance and not do or omit to do anything that might prejudice the cover or its right to make a claim.
- 5.2 As and when reasonably required by the Beneficiary, the Sub-Contractor shall produce for inspection documentary evidence that such insurance is being properly maintained.
- 5.3 If the insurer makes or attempts to make any material alteration or purports to withdraw the Sub-Contractor's professional indemnity cover, or if the Sub-Contractor is unable to obtain professional indemnity insurance, the Sub-Contractor shall promptly give notice of this to the Beneficiary.

6. **STEP-IN**

- 6.1 The Sub-Contractor shall not exercise nor seek to exercise any right of determination of its employment under the Sub-Contract or to rescind the Sub-Contract or to discontinue the performance of any of the Sub-Contractor's obligations in relation to the Sub-Contract by reason of breach on the part of the MUDFA Contractor (or otherwise) without giving to the Beneficiary not less than twenty one days' written notice of its intention to do so and specifying in such notice the grounds for the proposed determination. The Sub-Contractor will for the period of any such notice diligently and properly continue to perform the Sub-Contractor's obligations under the Sub-Contract.
- 6.2 Any period stipulated in the Sub-Contract for the exercise by the Sub-Contractor of a right of determination will nevertheless be extended as may be necessary to take account of the period of notice required under clause 6.4.
- 6.3 Compliance by the Sub-Contractor with the provisions of clause 6.1 will not be treated as a waiver of any breach on the part of the MUDFA Contractor giving rise to the right of determination nor otherwise prevent the Sub-Contractor from exercising its rights after the expiration of the notice unless the right of determination has ceased under the provisions of clause 6.4.
- 6.4 The right of the Sub-Contractor to determine its employment under the Sub-Contract or to rescind the Sub-Contract or to discontinue the performance of any of its obligations in relation to the Sub-Contract shall cease if within the period of twenty

one days referred to in clause 6.1 the Beneficiary gives written notice to the Sub-Contractor:

- 6.4.1 requiring the Sub-Contractor to continue with the performance of all its obligations under the Sub-Contract;
 - 6.4.2 acknowledging that the Beneficiary is assuming all the obligations of the MUDFA Contractor under the Sub-Contract; and
 - 6.4.3 undertaking to the Sub-Contractor to discharge all amounts payable to the Sub-Contractor under the terms of the Sub-Contract.
- 6.5 Upon compliance by the Beneficiary with the requirements of clause 6.4 the Sub-Contract will continue in full force and effect as if the right of determination on the part of the Sub-Contractor had not arisen and in all respects as if the Sub-Contract had been made between the Beneficiary and the Sub-Contractor to the exclusion of the MUDFA Contractor.
- 6.6 Notwithstanding that as between the MUDFA Contractor and the Sub-Contractor the Sub-Contractor's right of determination of its engagement under the Sub-Contract may not have arisen the provisions of clause 6.5 shall nevertheless apply if the Beneficiary gives written notice to the Sub-Contractor and the MUDFA Contractor to that effect and the Beneficiary complies with the requirements on its part under clause 6.4.
- 6.7 The Sub-Contractor does not need to be concerned or required to enquire whether, and will be bound to assume that, as between the MUDFA Contractor and the Beneficiary, the circumstances have occurred permitting the Beneficiary to give notice under clause 6.6.
- 6.8 By acting in accordance with the provisions of this clause 6 , the Sub-Contractor will not incur any liability to the MUDFA Contractor.
- 6.9 Unless and until the Beneficiary has given notice under this clause 6:
- 6.9.1 the Beneficiary has no liability whatsoever to the Sub-Contractor in respect of amounts payable to the Sub-Contractor under the Sub-Contract; and

6.9.2 the Beneficiary has no authority to issue any direction or instruction to the Sub-Contractor in relation to the performance of the Sub-Contractor's duties under the Sub-Contract.

6.10 Without prejudice to the provisions of clauses 6.1 to 6.9 inclusive, if prior to the service of any notice under clause 6.4 the employment of the Sub-Contractor under the Sub-Contract is determined for any reason whatsoever the Sub-Contractor shall, if requested in writing so to do by the Beneficiary no later than 12 weeks after the date of such determination, forthwith enter into a new agreement with the Beneficiary in relation to the carrying out of the Sub-Contract Works on the same terms as the Sub-Contract, but with such revisions as the Beneficiary and the Sub-Contractor may reasonably require to reflect altered circumstances and the fact that it is the Beneficiary and not the MUDFA Contractor employing the Sub-Contractor.

7. ASSIGNATION

7.1 The Sub-Contractor shall not assign, novate or otherwise transfer the whole or any part of the Agreement without the prior written agreement of the Beneficiary.

7.2 The Beneficiary shall be entitled to assign, novate or otherwise transfer the whole or any part of this Agreement:

[[Include where the Beneficiary is tie]

7.2.1 to the Scottish Ministers, TEL, the City of Edinburgh Council or any local authority;

7.2.2 any body with no worse financial standing than that of the Beneficiary who takes over all or substantially all the functions of the Beneficiary; or

7.2.3 to any other person whose obligations under this Agreement are unconditionally and irrevocably guaranteed (in a form acceptable to the Sub-Contractor acting reasonably) by the Beneficiary or a person falling within clause 7.2.1; or

7.2.4 with the prior written consent of the MUDFA Contractor (such consent not to be unreasonably withheld or delayed) to any person not covered by clauses 7.2.1, 7.2.2 or 7.2.3 .whose ongoing financial standing is no worse than that of tie.]

OR

[[Include where the Beneficiary is an other third party]

- 7.2.1 without the consent of the Sub-Contractor to any person provided that no more than two such assignments will be permitted. Any assignments by the Beneficiary to a subsidiary or associated company of the Beneficiary or a member of the same group of companies will not count as an assignment;
- 7.2.2 with the prior written consent of the Sub-Contractor (such consent not to be unreasonably withheld or delayed).]]
- 7.3 The Sub-Contractor undertakes to the Beneficiary not to contend in any court proceedings under this Agreement that any person to whom the Beneficiary assigns or has assigned its rights under this Agreement or any of them in accordance with the foregoing provisions of this clause is to be precluded from recovering any loss resulting from any breach of this Agreement (whenever happening) by reason that such person is an assignee and not the original contracting party under this Agreement or by reason that the Beneficiary is named under this Agreement or any intermediate assignee of the Beneficiary escaped loss resulting from such breach by reason of the disposal of its interest in the same.

8. LIABILITY OF THE SUB-CONTRACTOR

- 8.1 No provision of this Agreement is intended to exclude any obligation or liability which would otherwise be implied whether by the law of contract, delict or otherwise.
- 8.2 The responsibility of the Sub-Contractor under this Agreement is not to be reduced or in any way released or limited by any enquiry or inspection by or on behalf of any person notwithstanding that such enquiry or inspection may give rise to a claim by the Beneficiary against a third party.
- 8.3 The rights and benefits conferred upon the Beneficiary by this Agreement are in addition to any other rights and remedies that the Beneficiary may have against the Sub-Contractor including (without prejudice to the generality of the foregoing) any remedies in delict.
- 8.4 Subject to the other provisions of this Agreement, the liability of the Sub-Contractor to the Beneficiary is to be determined in all respects in accordance with the terms of the Sub-Contract and, in the event of any claim by the Beneficiary under this