Aberdeen Western Peripheral Route / Balmedie - Tipperty

Competition for the Design, Build, Finance and Operation of the Aberdeen Western Peripheral Route / Balmedie - Tipperty

Volume Five Schedule 4: O&M Works Requirements Part 8: Third Parties

709/ACP/600





Working in partnership

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SCHEDULE 4

O&M WORKS REQUIREMENTS

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APPENDIX 1

1. General

- 1.1 The Company shall comply with the requirements of a Relevant Authority / third party detailed in this Part 8 of these O&M Works Requirements.
- 1.2. Where within this Agreement there is a requirement to consult with a Relevant Authority / third party the Company shall identify the Relevant Authority / third party and comply with their requirements whether or not such requirements or the Relevant Authority / third party are identified within this Part 8 of these O&M Works Requirements.
- 1.3. Where as a consequence of consultation with a Relevant Authority / third party a requirement is specified which contradicts any other requirement of this Agreement, the Company shall discuss such with the Contracting Authority and where appropriate shall introduce a Company Change in accordance with Clause 35.
- 1.4. The Company shall consult with those Relevant Authorities / third parties detailed in this Part 8 of these O&M Works Requirements as appropriate, and shall where reasonable take account of comments received.
- 1.5. Reference to those Relevant Authorities or third parties within this Part 8 of these O&M Works Requirements shall mean these Relevant Authorities or third parties or their successor(s).
- 1.6. The Company shall take all necessary measures to avoid causing damage to Apparatus. The Company shall make its own detailed inquiries of the Relevant Authorities and third parties and shall satisfy itself as to the existence of the exact position of any such Apparatus and the depth, size and gradient thereof.
- 1.7. The Company shall provide Consultation Certificates in accordance with the Certification Procedure.
- 1.8. The terms "works" and "Works" in Appendix 1 shall be taken to mean the O&M Works whenever the context is relevant.
- 1.9 The term "Company" in Appendix 1 shall be taken to mean the Relevant Authority unless the context indicates otherwise.

2. Relevant Authorities / Third Parties

- 2.1 Subject to paragraph 1.2 above the special requirements of certain Relevant Authorities / third parties have been reproduced in a form provided by them.
- 2.2 Where necessary, the Company shall establish with the Relevant Authority / third party the definition of terms within each of the special requirements as applicable to the O&M Works.
- 2.3 Without prejudice certain terms have been related to the definitions given in this Agreement. Where this has been done the terms are detailed at the start of each of the special requirements.

APPENDIX 1

Appendix 1A - Special Requirements in Relation to Working on Trafficked Highways

The terminology used in these special requirements shall have the meanings assigned to them as detailed in this section with the following amendments:

"Contractor" means the Company as defined in the Agreement; and

"Contract" means the Agreement

These Special Requirements relate to the North East Trunk Road Network.

Furthermore, these Special Requirements relate to the incumbent (April 2013) 3G Operating Company. Contact details for the succeeding Operating Company will be provided following the award of the Transport Scotland 4G Operations and Maintenance Contract for the North East network.

Conditions and general requirements for Applicants wishing to carry out works on the North East Scotland Trunk Road Network.

All traffic management must be in strict accordance with the Traffic Signs Manual -Chapter 8 and BEAR Scotland Ltd will only deal with the applicant. The following points must be adhered to when making application and whilst occupying a slot on the network:

- (a) Applicants **must** notify 'Traffic Scotland' 15 minutes prior to placing the first cone on the network and again when all Traffic Management is lifted by telephoning **0141 287 9283.**
- (b) Signs must be erected of an appropriate size to display the name and telephone number of the organisation undertaking the works.
- (c) All traffic management must be in strict accordance with TSM Chapter 8.
- (d) All vehicles must comply with clause 2.2.1 of the Traffic Signs Manual (TSM) Chapter 8 volume 1 (1991).
- (e) All site personnel must wear approved high visibility clothing as per Clause 1.4 of TSM Chapter 8.
- (f) All traffic management equipment must be kept in clean and proper order throughout the duration of the works.
- (g) Two hourly checks are required on all traffic management works. These must be undertaken and recorded for all works including overnight works. Checks must be carried out and recorded.
- (h) The attached network access form must be completed in full. The following information must accompany the completed form.
 - (i) Method statement for the works
 - (ii) Traffic management layout drawing
 - (iii) Contact names and addresses for the works including night-time cover.
- (i) BEAR Scotland Ltd and Her Majesty's Constabularies reserve the right to remove or have removed any traffic management works, if safe to do so, should exceptional circumstances arise, e.g., a road traffic accident.
- (j) The BEAR Scotland Ltd network is subject to restricted working hours on certain sections. These will be detailed if applicable. It is the responsibility of

the applicant to seek clarification of any restrictions that may apply before commencing work.

- (k) Central reserve signs for any dual carriageway or motorway must be established using the Mobile Lane Closure technique as detailed in Volume 8 Section 4 of the DMRB (ref. TD49/97). This process must be strictly adhered to.
- (I) Works of type A will be subject to discussions with the local Police prior to a slot on the network being allocated.
- (m) BEAR Scotland Ltd will have the final decision on allocation of slots on the network. **This decision is non-negotiable**.
- (n) A minimum notice period of four weeks is required for works of one-week duration or less. A six-week minimum notice will be required for works over a one-week period. This does not affect the Statutory Undertakers Emergency powers.
- (o) Requests that involve emergency works/repairs will be treated on their individual merits.
- (p) For works that require a Temporary Traffic Regulation Order i.e. road closure, speed limit and contraflow a minimum notice period of twelve weeks will be required to allow for consultation with relevant parties i.e. Bus Companies, Local Authorities, Police, etc.

Any queries please contact:

The Traffic Officer BEAR Scotland Ltd 6A Dryden Road Bilston Glen Loanhead Midlothian EH20 9TY Telephone: 0845 413 0200

NETWORK ACCESS FORM

ORINGINATOR OF WORKS	:			
TRAFFIC MANAGEMENT C	ONTRACTOR :			
CONTRACTOR FOR THE WORKS :				
ADDRESS :		HEAD OFFICE TEL:		
		SITE CONTACT TEL:		
Route No.				
Location				
Date(s) From:				
To:				
Time(s)* From:				
To:				
Closure Type**				
Lanes Closed***				
Section 1.01 Speed Limit on Road/ Proposed Speed Limit				
Brief Description of Works				
Method Statement				
Temporary Traffic Management Proposals (Attach plan where appropriate)				
Consultation with local authorities, police etc				
Is Traffic Order Required? (If yes approval is conditional)				
Expected Delay****				

NOTES

Access will ONLY be granted on condition that Traffic Scotland is informed by telephone (0141 287 9283) 15 minutes prior to the first cone being placed on the network when all traffic management has been lifted.

* Time Restrictions may apply

** A, B, or C

*** L1, L2, L3, slip lane, hardshoulder, lay-by, verge, footway

**** To be completed by the Traffic Officer

BEAR Scotland Ltd Response

Approved Yes/No

Signed

Date

Before completing this form please read the conditions and general requirements for applicants wishing to carry out works on the trunk road network.

Form to be completed in full and returned to:

The Traffic Officer BEAR Scotland Ltd 6A Dryden Road Bilston Glen Loanhead Midlothian EH20 9TY

Telephone: 0845 413 0200

CLOSURE TYPE A, B OR C

- **TYPE A:** are those systems, which are allowed to remain in operation in all traffic flows and visibility conditions. They include all systems involving contraflows and other works of long duration.
- **TYPE B:** are those systems which are allowed to remain in operation when the traffic demand is less than the available carriageway capacity when the System is in place and there is good visibility. If the work cannot be completed within the allocated time for completion, then, either the Traffic Management System is to be removed and normal traffic conditions reinstated, or additional signing and lamps to the standard of a TYPE A Traffic Management System is to be installed.
- **TYPE C:** similar to TYPE B but the majority of traffic signs required are vehicle mounted. They are carried out when traffic flows permit, in good visibility and generally in daylight although night time systems are permissible. They include continuous mobile operations as well as those, which involve movement and periodic stops of short duration.

NOTIFICIATION/APPLICATION FOR INSTALLATION OF PORTABLE TRAFFIC SIGNALS

CONDITIONS

- 1. At least <u>SEVEN WORKING DAYS NOTICE SHALL BE GIVEN</u> for all works other than emergency and urgent works. For emergency and urgent works, e.g., when circumstances arise which could result in immediate danger to the public or serious damage to the road), this notice must be sent <u>WITHIN TWO HOURS</u> of work starting.
- 2. Wherever signal control is to be used at a works site, which contains or is near a <u>JUNCTION</u> two scaled plans showing the proposed temporary site layout must accompany this application. It is a STATUTORY REQUIREMENT for the Roads Authority to issue WRITTEN site approval BEFORE signals are installed, in these instances.
- 3. The signal equipment and traffic signs must satisfy fully all the requirements set out in the Traffic Signs Regulations and General Directions 2002, and all other relevant regulations, directions and technical memoranda.
- Procedures, layouts and operations shall be in accordance with the "Safety at Street Works and Road Works – A Code of Practice" and "Traffic Signs Manual – Chapter 8".

- 5. The mode of operation of the signals shall be "Vehicle Actuation" to the Department of Transport's booklet "An introduction to the Use of Traffic Actuated Portable Traffic Signals" (the pink booklet), unless otherwise agreed by the Roads Authority in writing.
- 6. If an external supply of electricity is required for the operation of the signals a separate application must be made to Scottish and Southern Energy and to the Area Engineer (lighting section) for such a supply.
- 7. All apparatus whether hired or owned by the user will be subject to a "beck and call" maintenance contract. The user must establish a safe working method of traffic control within 2 hours of the notification of a fault or defect.
- 8. The apparatus must be inspected and tested before delivery to site and the user must satisfy the Roads Authority and Police that the equipment meets all the necessary requirements and that a competent person has made the pre-delivery check.

Further copies of this form may be obtained from:

The Traffic Officer BEAR Scotland Ltd 6A Dryden Road Bilston Glen Loanhead Midlothian EH20 9TY

Telephone: 0845 413 0200

NOTIFICATION / APPLICATION FOR INSTALLATION OF PORTABLE TRAFFIC SIGNALS

SIGNALS MUST BE VEHICLE ACTUATED UNLESS OTHERWISE AGREED WITH BEAR SCOTLAND LTD

To:

BEAR Scotland Ltd. (Please note there is a statutory 6A Dryden Road requirement to notify BEAR Scotland **Bilston Glen** Ltd. of all portable signal installations Loanhead and it is necessary to obtain approval in Midlothian writing for those sites, which contain **EH20 9TY** or are near a junction) 1. I (name of applicant)..... on behalf of (state firm, address and phone no.)..... Give notice of intention to place and operate portable traffic signals at (state location) In accordance with the overleaf conditions. The intended dates of operations are:-

- 2. Start date and time Will signals be operational at all times YES/NO
- Finish date and time If no please state times of operation.....
- 3. BEAR Scotland Ltd must be notified within 48 hours of signals being removed from the carriageway.
- 4. List below two named employees and the signal hire company contacts, (at least one of whom shall be available at any time), who are in the first instance, to be called out at any time by the Police or by BEAR Scotland Ltd to rectify signals which are not working or not working properly.

Named Contacts:-

NAME	CONTACT ADDRESS and TELEPHONE No
(a) (Employee)	Day
	Night
(b) (Employee)	Day
	Night
(c) (Signal Company)	Day
	Night

I agree to meet all costs which are incurred by BEAR Scotland Ltd in respect of the connection, operation and disconnection of the signals and in respect of giving emergency attention in the event that the "named contacts" cannot be reached or are unable to rectify any fault within 2 hours of the first notification that the signals or associated signing are faulty.

Address where invoices to be sent if different from above:-Signed Date On behalf of

Traffic Management Requirements

Where work is carried out on or adjacent to a road open to vehicles, all vehicles and mobile plant operating on or adjacent to that road in the execution of the operations shall be painted in a conspicuous colour as described hereafter:

- (i) All vehicles used in mobile lane closures as defined in Section 6 "Type C Works" in Chapter 8 of the Traffic Signs Manual shall be painted in non-reflectorised yellow (Colour No. 355 to BS381 C or similar). Similarly all vehicles engaged in Operations within unprotected trafficked lanes for example, setting up major traffic management layouts such as tapers and contraflows) on dual carriageways and other high speed roads shall be painted non-reflectorised yellow.
- (ii) All other vehicles undertaking Operations shall be generally light in colour preferably but not necessarily non-reflectorised yellow and/or provide, over the full width and height of the vehicle which is exposed to approaching vehicles, conspicuous markings and signs to define clearly that the vehicle is a roadworks vehicle.
- (iii) Vehicles shall have a sign board reading "Highway Maintenance" (to Diagram 740A of Schedule 12 Part V of the Traffic Signs Regulations and General Directions 1994) fixed at the rear. The lettering shall be 150 millimetres "x height" except that for light vans and cars it shall be the largest "x height" that can be accommodated out of the following heights: 37.5, 50, 62.5 or 100 millimetres. The lettering shall be block capital letters from the alphabet described in the Traffic Signs Regulations and General Directions 2002 Schedule 13 Part II on a yellow non-reflectorised background in accordance with BS 381, Colour No. 355. In addition all purpose vehicles and plant shall be provided with either roof mounted light bars or at least two amber flashing beacons and light vans and cars shall be provided with a roof mounted amber flashing distinctive lamp.
- (iv) All warning lamps shall be switched on when the vehicle or plant is manoeuvring into or out of the location of the Operations, operating at low speed on the carriageway or hard shoulder open to vehicles or standing on a carriageway or hard shoulder open to vehicles.

Weekly Programme of Intent

Weekly Programme of Intent – The Contractor shall by **1200hrs** each following day, provide the Operating Company's Traffic officer with a detailed summary of Traffic Management Installation which have been in use on the Contract on each day, in the format attached.

Daily Record of Traffic Installations

Daily Record of Traffic Installations – The Contractor shall by **1200hrs** each following day, provide the Operating Company's Traffic Officer with a detailed summary of Traffic Management Installations which have been used in the Contract on each day, in the format attached.

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Schedule 4: O&M Works Requirements Pa

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WEEKLY PROGRAMME OF INTENT AND NOTIFICATION OF CARRIAGEWAY OCCUPATIONS SOUTH EAST UNIT Estimated delay to be completed by the Traffic Officer PROGRAMME PERIOD - WEEK COMMENCING Monday : LOCATION CARRIAGEWAY OCCUPATION DETAILS ACTIVITY DETAILS DURATION DAYS ROUTE CLOSURE TRAFFIC MANAGEMENT JUNCTION NAME/NUMBER CONTRACTOR/CONING TYPE ESTIMATED MAIN A, B, or C DELAY CONTRACTOR DIRECTION BY ROUTE FROM то LOCATION/DESCRIPTION/REASON/DIVERSION M T W T F S Su START END (SPEED LIMIT) E-MAIL TO RAY DIAMOND :ray.diamond@nadics.com OR FAX TO 0131 663 8016 ALL REQUESTS MUST INCLUDE A SITE MOBILE/ 24HOUR CONTACT NUMBER TEL: NAME: CODING FOR USE IN "ESTIMATED DELAY" COLUMN: ABBREVIATIONS The first digit indicates the extent of the delay HS: HARD SHOULDER 1 LITTLE OR NO DELAY NS: NEARSIDE COMMENTS: THE ABOVE INFORMATION IS BASED ON PLANNED WORKS WHICH MAY HAVE TO BE CHANGED AT SHORT NOTICE AS CIRCUMSTANCES DICTATE. II 2 SLIGHT DELAY OS: OFFSIDE SHOULD NOT THEREFORE BE TAKEN AS NECESSARILY COMPREHENSIVE. **3 MODERATE DELAY** CL: CENTRE LANE 4 SERIOUS DELAY RL: ROUNDABOUT IN CASE OF QUERY CONTACT: TL: TURNING LANE The second digit indicates the time the delay is expected SL: SLIP LANE TELEPHONE: 1 AT ALL TIMES CF: CONTRAFLOW 2 PEAK HOURS **3 OFF PEAK HOURS** NB: NORTHBOUND SB: SOUTHBOUND EB: EASTBOUND SCT: SINGLE CARRIAGEWAY TEMP LIGHTS WB: WESTBOUND MLC: MOBILE LANE CLOSURE

<u>Appendix 1B - Special Requirements in Relation to the Scottish Government</u> <u>Agriculture Food and Rural Communities Directorate</u>

The terminology used in these special requirements shall have the meanings assigned to them as detailed in this section with the following amendments:

"Contractor" means the Company as defined in the Agreement; and

"Contract" means the Agreement; and

"Engineer" means the Contracting Authority.

1. Special requirements in relation to the Scottish Government Agriculture Food and Rural Communities Directorate are as follows:

Before commencing any work over any portion of the Site the Contractor shall confirm with Scottish Government Representative, details of any restrictions relating to the prevention of the spread of animal, plant and/or poultry diseases which may for the time being be in force relating to the Site and any surrounding land and/or access ways to which the Contractor or any sub-contractor employed by him may have to seek to gain entry for the purpose of the Works. The Scottish Government Representative, can be contacted at the following point:

Address:

The Scottish Government Agriculture Food and Rural Communities Directorate (AFRC) Thainstone Court Inverurie Aberdeenshire AB51 5YA Tel: 01467 626222 Fax: 01467 626217 Email: SGRPID.thainstone@scotland.gsi.gov.uk

- 2. The Contractor shall ensure that his employees or the employees of any sub-contractor employed by him shall avoid all contact with livestock on or adjacent to the Site and keep strictly to any route which has been agreed with any owner/occupier of land affected by the Works at all times.
- 3. Where it is necessary for the purpose of the Works to enter land on which livestock are or may be kept the Contractor shall take all precautions to prevent any livestock penetration from adjacent land onto such land and/or contact between any livestock on that land and other livestock from adjacent land.
- 4. Where it is necessary for the purpose of the Works to enter land which is or has recently been occupied by livestock, the Contractor shall provide at each entry or exit to such land, appropriate arrangements for disinfecting all footwear and vehicles upon entry or exit from such land to the satisfaction of the Engineer. He shall ensure that all footwear and vehicles are cleansed of all dirt and mud before disinfecting with a clean disinfectant, regularly replenished at the correct dilution and which carries a valid citation on the label certifying approval by Scottish Government Agriculture Food and Rural Communities Directorate.

- 5. The Contractor shall not enter buildings occupied or used by livestock for the purpose of the Works without the express written consent of the owner/occupier. When such entry is necessary, rubber boots and protective over garments of an appropriate type shall be worn at all times which shall be disinfected upon the entry and exit from such buildings in accordance with the instructions given at paragraph 4 above.
- 6. Notwithstanding any other provisions within the Contract the Contractor shall take all necessary precautions to ensure that streams, ditches and water troughs are not polluted as a result of carrying out of the Works and that ditches and drainage outfalls are adequately protected from damage pollution and/or silting to the satisfaction of the Engineer.
- 7. The Contractor shall ensure that litter and/or debris resulting from the Works is not left or allowed to accumulate on or adjacent to the Site in areas accessible to livestock. The Contractor shall particularly make every effort to remove discarded foodstuffs remaining from human consumption - these may carry infectious agents harmful to livestock.
- 8. The Contractor shall ensure that all gates are kept closed and appropriately secured and shall make every effort to avoid damage to fences, hedges, trees and walls in order to prevent livestock from straying. Where such damage does occur the Contractor shall take immediate action to secure any resulting breach from the penetration and/or escape of livestock and immediately thereafter notify the Engineer who shall consult the owner/occupier as appropriate.
- 9. In addition to the above requirements the Contractor shall take all necessary precautions to protect farmers' stock herds against the risk/spread of Brucellosis. Such precautions shall include, but not be limited to, the provision by the Contractor at each entry or exit to such land, appropriate arrangements for disinfecting all footwear and vehicles upon entry or exit from such land to the satisfaction of the Engineer. He shall ensure that all footwear and vehicles are cleansed of all dirt and mud before disinfecting with a clean disinfectant, regularly replenished at the correct dilution and which carries a valid citation on the label certifying approval by Scottish Government Agriculture Food and Rural Communities Directorate.
- 10. The Contractor shall strictly comply with any restrictions and/or precautions relating to the movement of soil which may be requested by the Scottish Government Agriculture Food and Rural Communities Directorate in the interest of restricting the spread of crop diseases, such as (but not restricted to):
 - (i) Rhizomania (affecting beet)
 - (ii) Red Core Disease (affecting strawberries)
 - (iii) Wart Disease (affecting potatoes)
 - (iv) Verticillium Wilt (affecting hops)
 - (v) Cyst Nematodes (affecting potatoes/beet)
- 11. The Contractor shall strictly comply with any restrictions and/or precautions relating to the movement of soil which may be requested by the Scottish Government Agriculture Food and Rural Communities Directorate in the interests of preventing the spread of the following plant species:
 - (i) Japanese Knotweed
 - (ii) Giant Hogweed

In particular any soil or other such arising contaminated with or suspected of being contaminated with the rhizomes and/or roots of these species SHALL NOT be spread to areas currently free of these plants but shall be disposed of as directed by the Scottish Government Agriculture Food and Rural Communities Directorate Representative.

12 The Contractor shall strictly comply with the Plant Health Order 2012 relating to the import and movement of ash seeds, plants and trees in order to prevent further spread of Chalara dieback of ash (Chalara fraxinea).

13With regard to livestock diseases these include but are not restricted to :

- 1. Foot and Mouth Disease
- 2. Newcastle Disease (Fowl Pest)
- 3. Swine Fever
- 4. Swine Vesicular Disease

Should an outbreak of any of the above highly infectious diseases occur in the area the Contractor and/or any sub-contractor employed by him shall not enter further upon any land and shall immediately inform the Engineer and request instructions. The Engineer shall consult with and seek instructions immediately from the Scottish Government Agriculture Food and Rural Communities Directorate Representative.

- 14 Carcase Burial Pits
 - (i) Such pits contain the remains of animals which have been slaughtered for the purposes of containing certain diseases (particularly Foot and Mouth, but occasionally Anthrax). Unauthorised exhumation of such carcasses is illegal. Where there is prior knowledge that Carcase Burial Pits may exist in the area of the Works the Scottish Government Agriculture Food and Rural Communities Directorate Representative may be able to offer assistance in their location. However, if during the course of the Works a Carcase Burial Pit is encountered by the Contractor or any sub-contractor employed by him all work shall cease at that location and the Contractor shall appropriately secure that area of the Site against access and immediately inform the Engineer and request instructions. The Engineer shall consult with and seek instructions immediately from the Scottish Government Agriculture Food and Rural Communities Directorate Representative.

Compliance with the above requirements shall not relieve the Contractor of any of his obligations under the Contract.

Appendix 1C - Special Requirements in relation to Scottish Natural Heritage

The terminology used in these special requirements shall have the meanings assigned to them as detailed in this section with the following amendments:

"Contractor" means the Company as defined in the Agreement.

9. Special requirements in relation to Scottish Natural Heritage are as follows:

- (i) The Contractor shall take cognisance of the environmental importance of any area affected by the investigation and shall comply with all relevant legislation.
 - (a) The Contractor shall consult with Scottish Natural Heritage if any operation affects a statutory protected area, including but not restricted to, The River Dee Special Area of Conservation (SAC) and Corby, Lily and Bishops Lochs Site of Special Scientific Interest (SSSI).
 - (b) The Contractor shall consult with Scottish Natural Heritage if any operation affects a statutory protected species. Where protected species are affected by the Works, the Contractor shall prepare and submit a Protected Species Licence Application, to include a mitigation strategy in advance to Scottish Natural Heritage which shall be agreed before such operations proceed.
 - (c) The Contractor shall provide the findings of pre-construction ecological surveys to Scottish Natural Heritage as part of ongoing consultations.
 - (d) The Contractor shall consult with Scottish Natural Heritage before and during and works affecting The River Dee SAC and Corby, Lily and Bishops Lochs SSSI, and maintain written records of such consultations. Scottish Natural Heritage shall be informed of planned works a minimum of 7 days prior to commencing works within the SAC. Fence lines to secure and mark the boundary of the works adjacent to and within the SACshall be inspected and agreed with SNH in advance of works commencing.

The Contractor shall meet all other requirements of the appropriate regulating body in respect of water quality, air quality and noise emissions.

Address: Scottish Natural Heritage

Fodderty Way

Dingwall Business Park Dingwall IV15 9XB

Tel: 01349 865333

(ii) The Contractor shall liaise with the Ecologist appointed by SNH and inform the Contracting Authority a minimum of 7 days prior to commencing Works in any environmentally sensitive areas as identified at the start of the contract.

Appendix 1D - Special Requirements in relation to Historic Scotland

1. Undiscovered remains

Under principles and procedures agreed between Historic Scotland (HS) and the Contracting Authority responsibility for the main programme of archaeological mitigation work (i.e. archaeological excavation and recording) along the route of any trunk road scheme lies with the Contracting Authority through Historic Scotland. Archaeological evaluation and mitigation works are planned to be completed by the start of construction; however undiscovered archaeological remains may still be present The Company shall be aware that such undiscovered remains may be present and be revealed in the course of works. In such circumstances the Company shall ensure that procedures are in place to draw upon the services of an appropriately qualified Archaeological Contractor to liaise with Historic Scotland and to advise on and oversee necessary protection and mitigation measures.

2. Control of Ancillary Works

- (a) Where not already assessed within the Environmental Statements for the Schemes, the Company shall engage an appropriately qualified Archaeological Contractor to advise on the location, outwith the road line, of all Constructional Plant and temporary Works including borrow pits, spoil heaps, surplus soil disposal areas, haul roads, work camps, material storage areas. These may be on areas of land out-with the locations fully studied during the scheme assessment process.
- (b) The Archaeological Contractor shall have access to all Archaeological Reports on the Study Area prepared as part of the Environmental Assessment process. For works out-with the boundaries of the Study Area he shall undertake sufficient Desk Based Research and Fieldwork to identify the location, significance and extent of all sites of archaeological interest in the wider search area.
- (c) The Company shall make full use of the above information and the advice of his Archaeological Contractor to plan the works in accordance with current Government policy for the protection of the archaeological heritage. In general Works shall be planned to avoid significant archaeological features.
- (d) Currently no Scheduled Monument Consent is required. Should Works out-with the areas addressed in the Environmental Statements be required, prior to Works of any type within the boundary of any Scheduled Areas or Scheduled Ancient Monuments. Any application for Scheduled Monument Consent shall include a detailed specification for any proposed fieldwork mitigation. If Scheduled Monument Consent is granted, no Works may take place until Historic Scotland has approved the results of the fieldwork mitigation. Early contact with Historic Scotland is vital if works of any kind are proposed or suggested within, or within 50m of the boundary of, any Scheduled Monuments or Scheduled Areas.
- (e) For areas which the Archaeological Contractor research suggests may be archaeologically sensitive but the full potential remains uncertain, prior archaeological evaluation may be required to identify appropriate mitigation.
- (f) Where it has been determined that archaeological site(s) should be preserved but they lie so close to any proposed Works that they may be at risk from inadvertent damage, the Company, using the advice of his Archaeological Contractor, shall arrange for temporary fencing to be erected around the site(s) prior to works commencing. If any Scheduled Monuments or Areas are involved, Historic Scotland's prior written agreement must be sought on the area to be fenced. No Works of any nature will be permitted within these fenced-off areas.

(g) For any Works requiring Planning Permission, the Company shall submit to the planning authority, as part of his planning application, a statement of his archaeological assessment of the area, the implications of his development upon it and the details of any archaeological mitigation proposed.

3. Design and Mitigation: Methodologies

The Design and mitigation shall be in accordance with current good practice guidelines within Scotland including, but not limited to, the following:

- (h) Association for Environmental Archaeology 1995 Environmental Archaeology and Archaeological Evaluations, Working Paper No. 2;
- (i) Brown, D., 2007 Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation, Archaeological Archives Forum;
- (j) English Heritage, 2010 Waterlogged Wood: Guidelines on the Recording, Sampling, Conservation and Curation of Waterlogged Wood;
- (k) English Heritage, 2011 Environmental Archaeology a guide to the theory and practice of methods, from sampling and recovery to post-excavation, 2nd Edition;
- (I) Faegri, K. et al, 1989 Textbook of Pollen Analysis, 4th edition;
- (m) Garratt-Frost, S., 1992 The Law and Burial Archaeology, IfA Technical Paper No. 11;
- Hall, A., 1995 Environmental archaeology and archaeological evaluations: Recommendations concerning the environmental archaeology component of archaeological evaluations in England, Working Paper 2, Association for Environmental Archaeology;
- (o) Historic Scotland, 1996, Project Design, Implementation and Archiving (Historic Scotland Archaeological Procedure Paper 2);
- (p) Historic Scotland, 1997, The Treatment of Human Remains in Archaeology (Historic Scotland Operational Policy Paper 5) Reprinted and Amended 2006;
- (q) Institute for Archaeologists, 1994, Standard and Guidance for archaeological field evaluation, Revised 2008;
- (r) Institute for Archaeologists,1994, Standard and Guidance for an archaeological watching brief, Revised 2008;
- (s) Institute for Archaeologists, 1995 Standard and Guidance for archaeological excavation, Revised 2008;
- Institute for Archaeologists, 2001 Standard and Guidance for the collection, documentation, conservation and research of archaeological material, Revised 2008;
- (u) Institute for Archaeologists, 2009 Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives;
- (v) Mays, S., Brickley, M., and Dodwell N., 2004, Human Bones from Archaeological Sites: Guidelines for producing assessment documents and analytical reports;
- (w) McKinley, J.I., and Roberts, C., 1993 Excavation and post-excavation treatment of cremated and inhumed human remains, IfA Technical Paper No. 13;
- (x) Richards, J.C., Richards, J., and Robinson, D., (Eds), 2000, Digital Archives from Excavation and Fieldwork: Guide to Good Practice (Second Edition), Archaeology Data Service;

- (y) Royal Commission on the Ancient and Historical Monuments of Scotland, 1996a, Guidelines for Archiving of Archaeological Projects, ISSN 1352-1098;
- (z) Royal Commission on the Ancient and Historical Monuments of Scotland, 1996b, Guidelines for Archiving of Archaeological Projects;
- (aa) Scottish Government 2008 Treasure Trove in Scotland a code of practice;
- (bb) Society of Museum Archaeologists, 1993 Selection, Retention and Dispersal of Archaeological Collections: Guidelines for use in England, Wales and Northern Ireland;
- (cc) Society of Museum Archaeologists, 1995 Towards an Accessible Archaeological Archive, The Transfer of Archaeological Archives to Museums: Guidelines for use in England, Northern Ireland, Scotland and Wales;
- (dd) Walker, K., 1990 Guidelines for the Preparation of Excavation Archives for Longterm Storage, UKIC.

<u>Appendix 1E - Special Requirements in Relation to the Scottish Environment</u> <u>Protection Agency</u>

The terminology used in these special requirements shall have the meanings assigned to them as detailed in this section with the following amendments:

"Contractor" means the Company as defined in the Agreement.

Special Requirements in Relation to the Scottish Environment Protection Agency (SEPA) are as follows:-

1. The Contractor shall comply with the Water Environment (Controlled Activities) (Scotland) Regulations 2011.

The Control of Pollution Act 1974 (COPA 1974) which controlled discharges of poisonous, noxious or polluting substances and trade and sewage effluents to controlled waters in Scotland, was replaced by the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR), which came into force in March 2011 (superseding CAR 2005 which came into force in 2006).

It is important to undertake early consultation with SEPA to discuss any proposals for engineering activities, point source discharges, abstractions or impoundments in or near the water environment as it is an offence under the 2011 Regulations to carry out the majority of these controlled activities without a CAR authorisation.

Further details are provided in the Practical Guide on CAR via the web link below:

http://www.sepa.org.uk/water/water_regulation.aspx

SEPA Contact Name: Address:	Simon Davies
Inverdee House	Baxter Street Torry Aberdeen
AB11 9QA	
Tel: 01224 266600	
Telephone:	01224 266678
Email	samantha.fleming@sepa.org.uk

Appendix 1F - Special Requirements in Relation to Scottish Water

The terminology used in these Special Requirements shall have the meanings assigned to them as detailed in this section with the following amendments:

"Contractor" means the Company as defined in the Agreement; and

"Contract" means the Agreement.

- 1.1 Special requirements in relation to Scottish Water are as follows:
 - 1.2.1 Scottish Water Authority supplies water and sewerage services.

In these Special Requirements the following terms shall have the meanings assigned to them:

'Authority' means the Roads Authority (RA) initiating the roads development.

'Undertaker' means Scottish Water (SW).

'Undertaker's Representative' means the staff of the Scottish Water or its authorised representatives and/or agents.

- 1.2.2 The Contractor shall be assumed to be appointed by the Roads Authority (or Transport Authority) for the purposes of designing, constructing and/or managing the roads/transport scheme).
- 1.2.3 Before commencing any work or moving heavy plant or equipment over any portion of the Site the Contractor shall confirm details of all underground plant within the New Works Site.
- 1.2.4 At all times the contractor shall consider potential risks to SW apparatus and shall take measures to protect such apparatus, in line with best industry practice.
- 1.2.5 Before commencing any work involving the movement of heavy plant or equipment over any portion of a site, the Contractor shall confirm details of all underground plant within the site belonging to SW with the appropriate SW representative for the area and service involved. If necessary, trial holes shall be excavated to confirm position of SW apparatus. NB Trial holes shall only be done with the expressed permission of Scottish Water.
- 1.2.6 Where such details show a conflict between SW pipes or plant and the Contractor's works, the Contractor shall give Scottish Water at least two weeks notice of the date on which it is intended to commence such work or movement of plant and equipment in order that the presence of buried plant can be confirmed and indicated by markers.
- 1.2.7 The Contractor's method statement and safe system of work shall state clearly what measures are to be used to avoid damaging Scottish Water's apparatus and these shall be submitted to SW for consideration. The Contractor shall ensure that SW's plant is protected from damage, but if any damage should occur then SW shall be notified immediately.
- 1.2.8 The Contractor shall ensure that all method statements and risk assessments that are done which impact on SW apparatus are site specific, appropriate and comply with Scottish Water's Standards and Procedures. The Contractor shall submit completed method statements and risk assessments to SW for

information and comment and shall comply with SW's Distribution, Operations and Maintenance Strategy (DOMS) procedures.

- 1.2.9 Any damage to Scottish Water's apparatus shall be reported immediately to Scottish Water using the SW Call Centre number 0845 601 8855.
- 1.2.10 All costs due to damage to SW apparatus shall be charged to the third party that caused the damage. Costs charged may include any operational costs that were incurred by SW in order to mitigate loss of service and inconvenience to SW customers and hence these costs may be significant.
- 1.2.11 The following specific requirements must also be adhered to:
 - (i) All surface apparatus within the site belonging to Scottish Water including manhole covers, toby covers, valve covers, gratings etc shall be identified on site in advance of the works commencing.
 - (ii) On completion of the works the contractor shall again identify the apparatus and check it is still accessible and functional and shall take immediate remedial action if that is not the case.
 - (iii) The level of covers shall be adjusted to suit the new scheme. Alternatively covers shall be replaced or renewed as appropriate to suit the new roads scheme.
 - (iv) Before any work is carried out in the vicinity of pipelines trial holes shall be carefully excavated by hand as required to confirm the position of the pipe.
 - (v) Assistance in tracing SW apparatus can normally be arranged by SW's local representative, who shall be contacted before any trial holes are excavated.
 - (vi) Allow, in general, at least 300 millimetres clearance horizontally and vertically round Scottish Water's pipes in order to allow future repair and maintenance work to be made to the pipe.
 - (vii) The Contractor shall provide appropriate consolidation on reinstatement in order to reduce the effect of subsidence on SW apparatus.
 - (viii) Mechanical excavation shall not be used at the vicinity of SW apparatus. Machinery working can be used but only if agreed by SW. (see SW document "Working in the Vicinity of a Live Main").
 - (ix) Fencing may be required at specific points to exclude access by mechanical plant except at designated crossing points where suitable protection to the main shall be provided. Bridging works may be required at pipe crossings.
 - (x) SW shall be consulted before a decision is made to use explosives within 400m of a water main.
 - (xi) Once exposed, a water main will be treated with the utmost care to prevent damage from any source. It shall be supported as necessary at all stages of excavation and back filling, to the satisfaction of SW. Only short lengths shall be exposed at any time with only one joint being exposed.
 - (xii) In the event of a marker being disturbed for any reason, it shall not be replaced other than in the exact position and to its former depth, unless

the repositioning is carried out at the discretion and under the supervision of SW's representative.

- (xiii) Written permission shall be obtained from Scottish Water before water is obtained from the Public Supply and in particular the use of fire hydrants is permitted but only if a Scottish Water licensed standpipe is used.
- (xiv) Scottish Water shall be consulted before any piling is carried out within 15 metres of a water main. Any piling works adjacent to SW apparatus shall be carried out to the recommendations of BS 5228-2:2009 and to SW local requirements. Scottish Water reserves the right not to accept any piling works (or other works) that may pose an unacceptable risk to SW apparatus.
- (xv) Damage to a water main however slight, and even if only to the coating of a pipe, shall be reported immediately to the Undertaker and work suspended and men withdrawn as appropriate until an opportunity to assess the extent of any repair necessary is given.
- (xvi) If traffic is required to cross over a water main on site then the crossing arrangements shall be designed by the contractor and submitted to SW for consideration and acceptance. Such arrangements shall be designed so as to limit loading and settlement on the pipe and to limit risk of damage to the asset to acceptable levels. To avoid doubt, it should be noted that the final responsibility for the crossing point design lies with the contractor.
- (xvii) Water mains are normally laid at between 750 millimetres and 1500 millimetres cover but larger mains often cannot follow minor variations in the ground contours readily and may be shallower or deeper than this.
- (xviii) Sewer pipe depths can vary from 750mm to over ten metres and present significant risks. The primary risks relate to
 - a) Falling from heights due to deep manholes.
 - b) Noxious fumes and gases within the sewer system
- (xix) Under no circumstances must anyone enter a sewer on site and manhole covers should not be removed unless under SW's strict control arrangements.
- (xx) No work shall be done to the sewer or system without the expressed permission of Scottish Water by means of the issue of an Access Transfer Certificate.
- (xxi) Directional drilling or any other type of non-open cut installation of services shall not take place near Scottish Water plant or mains without written permission being given.
- (xxii) Where other apparatus or services are to be laid alongside a water main, a minimum separating distance shall be agreed on site. All trenches crossing the line of a water main shall be kept as near a right angle to the axis of the main as possible (i.e. shortest possible crossing).
- (xxiii) As part of the DOMS procedures and as part of the contractor's method statement, contingency arrangements may be required on site to cover the possibility of a SW asset being rendered inoperable by the contractor. Contingency arrangements should include
 - a) Contact names and details
 - b) Contingency options
 - c) Emergency procedures

- (xxiv)Where it is necessary to lay new apparatus across and above a water main an appropriate distance shall be left between the bottom of the new apparatus and the top of the main. This shall be agreed with SW
- (xxv) Where apparatus shall pass below a water main the trench shall be excavated by hand. Care will be taken so as to avoid undermining the water main (or sewer) and proposals shall be submitted by the contractor and agreed with SW
 - a) 48 hours notice of intention to back-fill under, over or adjacent to a water main shall be given to SW who then may arrange a representative to advise as to the suitability and consolidation of back-fill material over the pipeline.
 - b) Backfill material shall be suitable excavated or imported inert material. Material shall be agreed with SW.
- 1.2.12 The following tree planting requirements must also be adhered to:
 - (i) Before tree planting is carried out near mains approval shall be obtained from Scottish Water.
 - (ii) The consent to plant trees will indicate what areas may be planted and also the type of trees.
 - (iii) The only hardwood plants which cannot be planted directly across the water main are hedge plants such as Quickthorn, Blackthorn, etc. and these shall only be planted where a hedge is necessary either for screening purposes or to indicate a field boundary. Poplar and Willow trees shall not be planted within 10m of a water main.
 - (iv) The following trees and those of similar size (be either deciduous or evergreen) shall not be planted within 6m of a water main or sewer e.g. Ash, Beech, most Conifers, Elm, Horse Chestnut, Lime, Maple, Oak, Sycamore. Apple and Pear trees also come under this category.
 - (v) Raspberries, Gooseberries and Blackcurrant may be planted close to a water main or sewer but a 4m strip (1.5m each side of the water main) shall be left clear at all times.
 - (vi) Dwarf Apple Stocks may be planted to within 3m of a water main or sewer.
 - (vii) In cases where screening is required, the following are shallow-rooting and may be planted close to the mains or sewer:
 - a. Blackthorn, Broom, Cotoneaster, Elder, Hazel, Laurel, Privet, Quickthorn, Snowberry and most ornamental shrubs.
 - (viii) Christmas Trees (Picca Abies) may be planted to within 3m of the main or sewer. However, permission is given on the strict understanding that the Christmas Trees are clear felled at intervals not exceeding seven years.
 - (ix) Before any landscaping is carried out near water mains approval shall be obtained from Scottish water.
 - (x) Any consent to landscape will indicate the maximum and minimum depth of earth allowed to be added or subtracted to the overburden over the length of the pipe within which this applies. No heavy plant shall be used on or around the pipe without the express permission of SW in case of structural damage.

- (xi) However, no landscaping over the length of the pipe and the indicated width on the consent will be allowed that would affect SW's ability to reach the pipe in the event of an emergency.
- 1.2.13 The following other requirements must also be adhered to:
 - (i) The Contractor shall not allow material to enter the sewerage system or discharge to the sewerage system without the express permission of Scottish Water.
 - In the event of any damage whatsoever to Water or Sewerage apparatus the Contractor shall immediately inform CUSTOMER SERVICES AT SCOTTISH WATER 55 BUCKSTONE TERRACE EDINBURGH EH10 6XH. TELEPHONE: 0845 601 8855. FAX: 0131 445 5040. (Ask for Service Request Desk).
 - (iii) The contractor should liaise with one or more of the following:
 - a) Service Relocation team at 0141 355 5590 (For all NRSWA major Works projects in the first instance.
 - b) Scottish Water's local staff
 - c) SW Asset Delivery staff
 - d) Other SW employees as appropriate.

<u>Appendix 1G - Special Requirements in Relation to Aberdeenshire</u> Council – Planning <u>Department</u>

The terminology used in these special requirements shall have the meanings assigned to them as detailed in this section with the following amendments:

"Contractor" means the Company as defined in the Agreement.

- 1.1 Special requirements in relation to Aberdeenshire Council Planning Department are as follows:
 - 1.1.1 The Contractor is required to comply with the special requirements of the following Planning and Environmental Departments, which should be contacted 7 days prior to commencement of the contract with full details of the proposed Works.Formartine Area

Contact	Jane White, Area Planning Officer
Administrative Base	45 Bridge Street, Ellon, AB41 9AA
Telephone	01358-726429
Fax	01358-726450
Area Office Surgeries	Towie House, Turriff - Wednesday (every 3 weeks) 13.45 pm - 16.15 pm
Email	fo.planapps@aberdeenshire.gov.uk

Garioch Area

Contact	Darren Ross, Area Planning Officer	
Administrative Base	Gordon House, Blackhall Road, Inverurie, AB51 3WA	
Telephone	01467-628576	
Fax	01467-628469	
Email	ga.planapps@aberdeenshire.gov.uk	

Kincardine & Mearns Area

Contact	Neil Stewart, Area Planning Officer	
Administrative Base	Viewmount, Arduthie Road, Stonehaven, AB39 2DQ	
Telephone	01569-768300	
Fax	01569-766549	
Email	km.planapps@aberdeenshire.gov.uk	

<u>Appendix 1H - Special Requirements in Relation to Aberdeen City Council – Planning</u> <u>Department</u>

The terminology used in these special requirements shall have the meanings assigned to them as detailed in this section with the following amendments:

"Contractor" means the Company as defined in the Agreement.

- 1.1 Special requirements in relation to Aberdeen City Council Planning Department are as follows:
 - 1.1.1 The Contractor is required to comply with the special requirements of the Roads Department which should be contacted 7 days prior to commencement of the contract with full details of the proposed Works:

Development Management

Enterprise, Planning and Infrastructure Aberdeen City Council Business Hub 4 Marischal College Broad Street Aberdeen AB10 1AB Phone: 01224 523470 Fax: 01224 523180 Email: pi@aberdeencity.gov.uk

Appendix 1I – NOT USED

Appendix 1J - Special Requirements in Relation to British Telecommunications Plc

The terminology used in these special requirements shall have the meanings assigned to them as detailed in this section with the following amendments:

"Contractor" means the Company as defined in the Agreement; and

"Contract" means the Agreement.

Special requirements in relation to British Telecommunications Plc are as follows:

12. In this Special Requirement the following terms shall have these meanings assigned to them:

- a. 'Company' means British Telecommunications Plc ("BT").
- b. '**Company Representative**' means the staff of BT, or its authorised representatives or Agents.
- c. '**Apparatus**' means all boxes, cabinets, poles and plant including any associated cabling and/or ducting owned by BT.
- (i) All works in the public highway are subject to the New Roads and Street Works Act 1991, and the Promoter of the work is legally responsible to bear the cost of safeguarding Apparatus. The "highway" includes carriageway, verges, footpaths, etc.
- (ii) Before commencing any work, or moving of heavy plant or equipment over any portion of the site the contractor shall confirm details of the Apparatus, owned, leased or rented by the Company, within the site with the Company Representative, who can be contacted as detailed in para.(xi).

Apparatus maps are also available at <u>www.bt.com/btplant</u>. Please contact 0800 169 3849 for a user ID and password to access the system.

- (iii) Where such details show that the works or the movement of plant or equipment may endanger the Apparatus, the Contractor must give the Company Representative at least 7 days notice of the date on which it is intended to commence such works or the movement of plant or equipment in order that the presence of any sub-surface Apparatus can be indicated by markers to be supplied by the Company and placed by the Contractor under supervision of the Company Representative. The Contractor shall ensure that all Apparatus, particularly surface running cable, is adequately protected from damage and the Company Representative shall approve such protective measures. In the event of a Company marker being disturbed for any reason it shall not be replaced other than in the exact position and to its former depth unless the repositioning is carried out at the direction and under the supervision of the Company Representative.
- (iv) In the event of a Company marker being disturbed for any reason it shall not be replaced other than in the exact position and to its former depth unless the

repositioning is carried out at the direction and under the supervision of the Company Representative.

- (v) The Contractor shall take particular care in relation to the protection of Apparatus, where such Apparatus includes the presence within the site of optical fibre and/or co-axial cabling. The Contractor shall make every effort to avoid the disturbance of the Company's network which, if damaged, can prove costly to reinstate. The Contractor shall make every effort to avoid the disturbance of Apparatus more than is absolutely necessary for the completion of the works in accordance with the Contract.
- (vi) When excavating, or backfilling around Apparatus, the Company Representative shall be given adequate notice, which should be not less than 7 days, of the Contractor's intentions in order that he may supervise the works. The Contractor should note that the normal depth of cover for Apparatus and ducts is as follows :-
 - (e) in footways 350 millimetres, which is to be maintained
 - (f) in carriageways 600 millimetres, which is to be maintained.

Where the 350/600 millimetres depth of cover cannot be maintained the Contractor shall carry out the instructions of the Company Representative for the protection of the Apparatus. Where the required depth of cover cannot be maintained over cabling, such cables may have to be diverted.

- (vii) All excavation adjacent to Apparatus is to be carried out by hand until the exact extent and/or location of Apparatus is known. Mechanical borers and/or excavators shall not be used within 1.0 metres of Apparatus or 2.0 metres of any pole without the supervisory presence of a Company Representative. To prevent any movement of Apparatus during excavation, complete shuttering shall be used as directed by the Company Representative if:
 - (a) excavation is deeper than the depth of cover of adjacent Apparatus;
 - (b) excavation is within 1.0 metres of Apparatus in stable soil; or
 - (c) excavation is within 5.0 metres of Apparatus in unstable soil.

If for completion of the works the Contractor intends using any of the following:

- 1. pile driving equipment within 10.0 metres of Apparatus;
- 2. explosives within 20.0 metres of Apparatus; or
- 3. laser equipment within 10.0 metres of Apparatus
- the Contractor shall advise the Company Representative, in writing, in order that any special protective measures for the Apparatus affected may be arranged.
- (viii) All Company manhole, joint box and/or other access points and chambers within the site shall be kept clear and unobstructed. Access for vehicles, winches, cable drums and/or any further equipment required by the Company for the maintenance of its Apparatus must be maintained at all reasonable times. The Contractor should particularly note the footway type chambers are not specified

for carriageway loading and will need to be adequately protected and/or demolished and rebuilt under supervision of a Company Representative where such chambers are likely to be placed at risk, either temporarily or permanently, from the movement of plant and/or equipment on the site. The Company Representative shall be given reasonable access to all Apparatus and chambers when required. Where BT installs Apparatus during the works this new Apparatus shall be treated as existing Apparatus for the purpose of these Special Requirements.

- (ix) For Frame and Covers that necessitate a change in level please contact the local office. If you wish to provide recessed frames and covers they will have to be supplied by the Company's agreed supplier. The Contractor must be prepared to supply and install such frames and covers in future, and must supply names of who will be liable for future maintenance.
- (x) In the event of any damage whatsoever to Apparatus the Contractor must immediately inform BT and report the occurrence as follows :

Call BT fault reporting on 0800 800 154 WARNING

Entry into all BT underground structures is prohibited to all unauthorised personnel.

(xi) For free on site assistance prior to commencement of works :

Tel: 0800 0232023

Fax: 020 8326 4050

E-mail : <u>dbyd@bt.com</u>

Seven working days notice is required.

(Office hours: Monday to Friday 08:00 to 17:00)

Compliance with the above requirements does not relieve the Contractor of any of his obligations under the Contract.

<u>Appendix 1K - Special Requirements in Relation to Scotland Gas Networks Ltd –</u> <u>Distribution and Transmission</u>

The terminology used in these special requirements shall have the meanings assigned to them as detailed in this section with the following amendments:

"Contractor" means the Company as defined in the Agreement;

"Contract" means the Agreement; and

"Engineer" means the Contracting Authority.

- 1.1 Special requirements in relation to Scotland Gas Networks Ltd are as follows:
 - 1.1.1 In these Special Requirements the following terms shall have the meanings assigned to them:

'Company' means Scotland Gas Networks Ltd.

'Company Representative' means the staff of Scotland Gas Networks Ltd or its Authorised Representatives and Agents.

'**Apparatus**' means all surface or sub-surface equipment and plant including any gas pipeline(s), main and/or service owned, leased or rented by Scotland Gas Networks Ltd.

1.1.2 Before commencing any work or moving heavy plant or equipment over any portion of the Site the Contractor shall confirm details of any Distribution and/or Transmission Apparatus within the Site with the Company Representative, who can be contacted at the following point:

Address: Mr. Archie Berry

Scotland Gas Networks Ltd

95 Kilbirnie Street

Glasgow

G5 8JD

E-mail: archie.m.berry@sgn.co.uk

Telephone: 0141 418 4152

or for on-site location of plant:

Moleseye (was Susiephone) 0800 800 333

- 1.1.3 Where such details show that the work or the movement of plant or equipment on the Site may endanger any Apparatus, the Contractor shall give the Company Representative at least 7 days written notice of the date on which it is intended to commence such Works or the movement of plant and equipment in order that the presence of any sub-surface Apparatus can be indicated by markers to be supplied by the Company and placed by the Contractor under the supervision of the Company Representative. The Contractor shall ensure that all Apparatus is adequately protected from damage and such protective measures shall be to the satisfaction of the Company Representative.
- 1.1.4 In the event of a Company marker being disturbed for any reason it shall not be replaced other than in the exact position and to its former depth unless the repositioning is carried out at the direction and under the supervision of the Company Representative.

- 1.1.5 The Contractor shall carry out all works in connection with the Contract with reference to the requirements of the following publications:
 - Institute of Gas Engineers: IGE / SR / 18 Part 1 (1990), Communication 1947 - 'Safe Working in the vicinity of Gas Pipelines, Mains and Associated Installation' (Part 1: 'Operating at Pressures in Excess of 2 Bar').

Health and Safety Executive (HSE): HS (G) 47 - 'Avoiding danger from underground services'.

Scotland Gas Networks Ltd Specification: T/SP/SSW2 - 'Code of Practice for Safe Working in The Vicinity of Scotland Gas Networks Ltd Transmission Pipelines and Associated Installations Operating at Pressures in Excess of 7 Bar'.

In addition to the above document, the following Special Requirements shall apply to the road construction works within the vicinity of the Transmission network;

1. Planned diversions to SGN apparatus are based on the Specimen Design for the new road.

2. No variations from the specimen design of the new road at interface points with existing or proposed SGN apparatus shall be permitted without the prior written agreement of SGN Ltd.

2. The order of works for the SGN diversions shall be only as prescribed by SGN and shall not be subject to any outside interference.

3. 24 hour access to SGN apparatus and installations shall be maintained by the roads contractor at all times throughout the road construction works.

4. Any works associated with the new road, not covered by the Specimen Design, which impact upon SGN apparatus shall be subject to the conditions of this document, the relevant roads legislation, and the conditions outlined above.

Scotland Gas Networks Ltd Cathodic Protection Policy T/PL/ECP1.

- 1.1.6 The Contractor shall avoid the disturbance of Apparatus more than is absolutely necessary for the completion of the Works in accordance with the Contract. In particular 'Thrust Blocks' and other such support shall NOT be disturbed without the specific written approval of the Company Representative. The Contractor should particularly note that large diameter Gas pipelines may either be:
 - (g) High Pressure pipelines frequently operating at pressures exceeding 7 bar; or
 - (h) Low, Medium and Intermediate pressure local distribution mains below 7 bar.
- For differing reasons either type poses a considerable hazard to safety if damaged. The Contractor shall also note that smaller Gas distribution pipes may be of yellow plastic, cast iron, steel or other such material and that unless specifically known to the contrary any such services encountered during the course of the Works should be assumed to be Gas pipelines and treated as such in

accordance with these Special Requirements until positively identified otherwise and the Engineer so notified in writing.

- 1.1.7 No vehicle plant or machinery shall cross, stand, operate or travel within 3.0m of any Apparatus particularly gas pipelines except as approved by the Company Representative. The Contractor shall agree his methods of working near any Apparatus with the Company Representative and ensure that any Apparatus is adequately protected from damage by the use of wooden sleeper tracks or reinforced concrete rafts at crossing points as appropriate. Temporary fencing of adequate strength shall be erected to regulate the movement of vehicles plant and machinery in the vicinity of Apparatus. All such protective measures shall be to the satisfaction of the Company Representative.
- 1.1.8 Where for the purposes of completing the Works in accordance with the Contract it is necessary to lay a new service across an existing Gas pipeline whether above or below, a minimum clearance of 600 millimetres shall be left between the outside of the Gas pipeline and the new service to be installed. Under no circumstances shall a new service be laid parallel above or below a gas pipeline. Hydraulic or other form of pressure testing of any new services shall not be permitted within 6.0 metres of any Gas pipeline unless precautions have been taken involving the use of pre-installation tested pipeline having a design factor of 0.3 for a distance of 6.0 metres either side of the Gas pipeline and/or such additional precautions including but not limited to sleeving barriers and the like as the Company Representative may require in consultation with the Engineer.
- 1.1.9 The Contractor shall particularly note that Gas pipelines and other Apparatus of the Company are usually cathodically protected to Scotland Gas Networks Ltd Policy T/PL/ECP1. The Company will require interaction tests to be carried out to determine whether its own system will be adversely affected by any new service and/or its protective measures. Any work requiring the removal modification and/or movement of Apparatus shall only be carried out by the staff of the Company and/or its authorised contractors and Agents. In the event that any cathodic protection posts and/or associated Apparatus require to be removed replaced and/or moved for the purposes of the Works the Contractor shall give not less than seven days' written notice of the requirement to the Company.
- 1.1.10 When excavating or backfilling around Apparatus, the Company Representative shall be given not less than 3 days written notice, of the Contractor's intentions in order that he may supervise the Works.
- 1.1.11 Backfilling shall be in 150 millimetres layers, or as may otherwise be directed, consolidated layer by layer to the satisfaction of the Company Representative. Fill shall be free from flints, stones and carbonaceous material. Where slabbing reduces such depth, clean sand filling shall be used.
- 1.1.12 All excavation adjacent to Apparatus is to be carried out by hand until the exact extent and/or location of Apparatus is known. The Contractor shall note the following:
 - (i) Mechanical borers shall not be used within 15 metres of Apparatus; and
 - (ii) Hand held power assisted tools shall not be used within 1.5 metres of Apparatus without the supervisory presence of a Company Representative.
- 1.1.13 To prevent any movement of Apparatus during excavation, complete shuttering shall be used as directed by the Engineer if:

- (i) Excavation is deeper than the depth of cover of adjacent Apparatus;
- (ii) Excavation is within 3.0 metres of Apparatus in stable soil; and
- (iii) Excavation is within 6.0 metres of Apparatus in unstable soil.

Where excavation results in the exposing of Gas pipelines or other Apparatus, protective timber cladding shall be applied to the Gas Pipelines or Apparatus to the satisfaction of the Company Representative and shall be maintained until such excavation is reinstated and backfilled.

- 1.1.14 If for the completion of the Works the Contractor intends using any of the following:
 - Pile driving equipment within 15.0 metres of Apparatus (or such greater distance as may be required to ensure that the MAXIMUM peak particle velocity as measured at the Apparatus does NOT exceed 25 millimetres per second);
 - (ii) Explosives within:
 - (a) 400.0 metres of exposed Apparatus; or
 - (b) 100.0 metres of buried Apparatus.
 - (iii) Hot Works welding and the like within 15.0 metres of Apparatus; and
 - (iv) Hydraulic testing within 6.0 metres of Apparatus.

The Contractor shall advise the Company Representative, giving at least 7 days written notice, in order that any special protective measures for the Apparatus affected may be arranged. The Contractor SHALL NOT proceed with the use of any of the above without the written consent of the Company Representative.

- (iii) All Apparatus manholes and/or other access points and chambers within the Site shall be kept clear and unobstructed. Access for vehicles, winches and/or any further equipment required by the Company for the maintenance of its Apparatus, shall be maintained at all reasonable times and unless otherwise agreed in writing by the Company representative a clearance of 6.0 metres shall be allowed for such access.
- (iv) The covers to Apparatus manholes and/or other access points and chambers shall only be lifted under the direct supervision of the Company Representative. No employee of the Contractor or of any sub-contractor employed by the Contractor shall enter any chamber and/or Apparatus of the Company unless under the supervision of the Company Representative and in any case not before a gas check as specified by the Company Representative has been carried out in the presence of the Company Representative and such checks have shown it to be safe to enter the chamber and/or Apparatus. The Company Representative shall be given reasonable access to all Apparatus and chambers when required.
- (v) In the event of any damage whatsoever even of a minor nature to Apparatus particularly to Gas pipeline coatings and/or test leads the Contractor shall immediately inform the Engineer and report the occurrence by contacting the Company Representative. The Company Representative will arrange for repairs to be carried out.
- 2. Emergency Action

- 2.1.1 The following actions shall be taken by the Contractor in the event of a gas leak in any Apparatus:
 - (i) Evacuate all personnel from the vicinity of the pipeline damage or leak.
 - (ii) Remove and/or extinguish all sources of ignition for a distance of at least 200 metres in all directions from the location of the leak. This precaution shall include a ban on the use of any electrical equipment falling within this limit.
 - (iii) IMMEDIATELY inform the Company, the Engineer and (if required) the Emergency services in that order.

THE EMERGENCY TELEPHONE NUMBER OF THE COMPANY IS: 0800 111 999

- (iv) Secure the area from the approach of all employee traffic and/or the general public.
- (v) Render every assistance to the Emergency Services and/or the Company as shall be requested for the purposes of mitigating damage arising from the leak and/or for the purposes of securing public safety.
- (vi) DO NOT ATTEMPT TO SEAL ANY LEAK OF GAS AT THE POINT OF DAMAGE
- (vii) Compliance with the above requirements shall not relieve the Contractor of any of his obligations under the Contract

<u>Appendix 1L - Special Requirements in Relation to Scottish and Southern Energy</u> – <u>Distribution and Transmission</u>

All works subject to SSE terms and conditions and charging methodology, landowner / legal consents from third parties and the following;

HSE Documents:

- HSG47 Avoiding danger from underground services
- GS6 Avoiding danger from overhead power line

Appendix 1M - Special Requirements in Relation to Network Rail

The terminology used in these special requirements shall have the meanings assigned to them as detailed in this section with the following amendments:

"Contractor" means the Company as defined in the Agreement; and

"Contract" means the Agreement.

Introduction

The railway is a particularly hazardous environment. The danger from train movements, overhead power lines, buried cables and electrified rails at ground level must not be underestimated. The Industry's safety policy and safety management systems require the enhancement of some society legislation and the following Special Requirements in relation to Network Rail indicate areas where the legislative requirements are strengthened.

These requirements apply to all types of work on Network Rail land i.e. surveying, inspection, construction and maintenance.

1. Definitions

In these Special Requirements, the following terms shall have the meanings assigned to them:

- a. **'Contractor'** means any person or company to whom a contract for the whole (or any part) of the Works is let and for whom the Other Party is the Contracting Authority.
- b. **'Isolation'** means planned arrangements for the predetermined period for the interruption of traction electricity between defined locations.
- c. **'Network Rail Company Standards'** means a standards document issued by Network Rail for its own use (as amended by Network Rail from time to time) in relation to the railway as a whole which applies to the performance of the Works.
- d. **'Network Rail's Representative'** means a person duly authorised to act on Network Rail's behalf.
- e. **'Other Party'** means a party which has contractual obligations to Network Rail under a works agreement in respect of the design, construction and maintenance of a bridge over or under the railway Infrastructure.
- f. **'Possession'** means planned safety arrangements which control or prevent the normal movement of rail traffic on the Railway Infrastructure between defined locations and for a predetermined period.
- g. **'Railway'** means the Railway Infrastructure, Network Rail's activities in carrying out the operation, maintenance and replacement of the Railway Infrastructure, and traffic on the Railway Infrastructure.
- h. **'Railway Infrastructure'** means Network Rail's Infrastructure and operational track.
- i. **'Safety Personnel'** means the personnel required to implement safe working practices on or about the Railway Infrastructure.

- j. **'Service'** means electricity cables, gas pipes, water pipes (including piped sewage), other pipelines or signalling telecommunication plant cables and equipment irrespective of owner.
- k. **'Temporary Speed Restriction'** means a planned restriction on the speed of rail traffic between defined locations for a specific period of time.
- I. **'The Works'** means the design and construction, and where the Other Party is obliged to carry it out, the maintenance of a bridge over or under the Railway Infrastructure and all tasks incidental thereto.
- m. **'Work Site'** means any lands or other places, on, or under, in or through which the works are to be executed.

2. Access

2.1

Written Authority

Before any activity is undertaken in connection with the Works requiring access to land in the ownership of Network Rail, written authority shall be obtained from Network Rail's Representative for access to such land including the conditions under which such access will be granted.

2.2 Procedures for Safe Access to Railway Property

Robust procedures must be established and maintained to ensure safe access for all persons to land in the ownership of Network Rail in connection with the Works and such procedures must be submitted to Networks Rail's Representative for written approval prior to access being granted.

2.3 Trespass

No person shall be permitted to access land in the ownership of Network Rail beyond the agreed limits of the Works Site or access route for the duration of the Works.

2.4 Crossing the Railway Tracks

No person shall cross or convey constructional plant and/or materials across or along any railway track unless special arrangements are made and written consent obtained from Network Rail.

Where public rights of way exist over occupation and/or accommodation level crossings and/or bridges, these crossings shall only be used in the way that they are intended to be used by the public unless special arrangements are made and written

Only in very exceptional circumstances will the provision of a temporary level crossing be permitted. Where Network Rail is prepared to accept the provision of a temporary level crossing for constructional traffic and/or public use sufficient time must be allowed for obtaining the appropriate approvals and the period of notice required by Network Rail for making the necessary arrangements for carrying out the work.

3. **Risk Management**

3.1 Robust Procedures for Safe Access and for Safe Working Practices

Systems, procedures and working practices that avoid risk to the Railway arising from the Works and that protect those persons involved in the execution of the Works from risks arising from the Railway must be developed and implemented in conjunction with the Contractor's Health and Safety Plan, as defined in the Construction (Design and Management) Regulations 2007 (as amended from time to time). These shall be submitted to Network Rail's Representative for written approval prior to the Works being undertaken.

Specific training (i.e. Personal Track Safety Training) and competency requirements apply to persons who work on the Railway Infrastructure or require access on or near the line. The training and competence requirements of the Works must be agreed in writing with Network Rails Representative before access is allowed.

3.2 Services

A full survey must be undertaken to ascertain the location and nature of all services within the Works Site or access route(s). All necessary protective measure must be incorporated and implemented to the satisfaction of the Network Rail's Representative.

The degree of existing protection provided to Services on or about the Railway Infrastructure can vary. Therefore Services must not be interfered with or moved unless authorised by Network Rail's Representative.

Additional precautions must be taken by the Contractor to establish the existence, position and location of any buried Services which may be present before any excavation, or the driving of objects into the ground, is undertaken. All necessary precautions shall be taken by the Contractor to avoid damaging buried Services when excavating, surcharging and driving object into the ground.

Should any unknown or unexpected Service be discovered or uncovered during the Works, the works in the vicinity of the Service must stop, ownership must be established, Network Rail and the owner of the Service must be informed and appropriate precautions for protection must be taken prior to recommencing the works.

Any service not diverted must be supported, maintained, protected as necessary and kept in working order in its existing location.

Where temporary or permanent service diversions are necessary a method and routing specification must be agreed with Network Rail's Representative. The service provided shall be maintained at all times unless otherwise agreed with Network Rail's Representative.

Any equipment (Cable Avoiding Tools (CATS) for example) utilised to establish the position of buried Services must be of a type approved by Network Rail for use on the Railway Infrastructure.

3.3 Use of explosives

Explosives must not be used on or about the Railway Infrastructure without the prior written agreement of Network Rail. Evidence of full compliance with all current legislation relating to the acquisition, storage, keeping and use of explosives must be provided.

3.4 **Protection to Railway Equipment**

Special protection to prevent damage to the tracks, signal and telecommunication equipment and all other railway equipment and contamination of track ballast during the execution of the Works shall be

designed, constructed, maintained and removed on completion of the Works or as otherwise directed by Network Rail's Representative.

3.5 Confined Spaces

A considerable number of confined spaces exist on or about the Railway Infrastructure. In carrying out the Works all Contracting Authority's and contractor's personnel must fully comply with the requirements of the Confined Spaces Regulations 1997 and the associated Approved Code of Practice.

4. **Programming of the Works**

4.1 **Possessions, Isolations and Temporary Speed Restrictions**

The use of Possessions, Isolations and Temporary Speed Restrictions should be avoided to minimise disruption to railway traffic. If the need for Possessions, Isolations and Temporary Speed Restrictions cannot be avoided then they shall only be carried out on dates and at times agreed in writing by Network Rail's Representative.

The notice periods for booking of Possessions, Isolations and Temporary Speed Restrictions are dependant upon the duration and location of the Works. Ate the earliest opportunity advice should be sought from Network Rail's Representative as to the requirements for booking Possessions, Isolations and Temporary Speed Restrictions.

4.2 Initial Programme

An initial programme for the Works must identify the key construction activities timing constraints and indicate when Possessions, Isolations and Temporary Speed Restrictions are being sought.

4.3 **Programme Development**

The programme shall be developed taking account of comments from Network Rail's Representative and must be reviewed from time to time as required.

Network Rail may cancel or alter the dates and times of any agreed Possessions, Isolations and Temporary Speed Restrictions at short notice, if this proves necessary because of the overriding operational requirements of the Railway. If this occurs alternative arrangements will be made as soon as the situation permits.

5. **Method Statements**

Method Statements must include a comprehensive step-by-step account of how the relevant part of the Works will be executed (incorporating where necessary maintenance and subsequent removal) including:

- Working times
- Access routes and location plan

• Plant usage and backup (including equipment and operator certificates)

- Superintendence, inspection and monitoring arrangements
- Temporary works

and as appropriate supported by:

- Design statements
- Drawings and cross sections

• Site and Ground Investigation reports including geotechnical interpretive reports

- Calculations
- Settlement, noise, vibration predictions
- Design check certificates
- Risk mitigation measures
- Storage, movement and clearance of materials and equipment
- Temporary or permanent diversion of services
- Earthing and bonding arrangements near electrified equipment
- Use of Surveying equipment

Method statements for works to be carried out in Possessions, Isolations and Temporary Speed Restrictions must also include a detailed programme for each work item, which must identify critical path activities and include contingency planning i.e. standby plant and equipment etc.

Method statements must be submitted for full consideration, comment and/or approval by Network Rail's Representative in sufficient time to allow for comments to be incorporated and revised proposals to be resubmitted as necessary.

6. Site Management

6.1 Site Representation

At the request of Network Rail, the Contractor or the Other Party must appoint a full time senior representative at the Work Site during the course of the Works.

6.2 Training

Prior to the commencement of and during the Works, familiarisation training and briefings shall be given to everyone who has access to the Works Site. Records of training and briefings are to be retained on the Works Site for inspection. Certain activities carried out during the Works may require railway specific training. These activities shall be identified and notified to the Contractor by Network Rail's Representative when the initial programme of works is submitted.

6.3 Contact Names and telephone numbers

Prior to commencement of works on the Works Site Network Rail's Representative must be provided with a list of names and telephone numbers for personnel responsible for organising remedial action in the event of an emergency on the Work Site when the Works Site is unattended.

6.4 Accommodation for Network Rail's Representative

Serviced accommodation for the use of Network Rail's Representative shall be provided in line with the requirements of and to the satisfaction of Network Rail.

6.5 Advertisements

Advertisements must not be displayed on or about land in the ownership of Network Rail without the prior written consent of Network Rail.

6.6 Working Time

The Railway (Safety Critical Work) Regulations 1994, and the supporting guidance documents, place strict limitations upon the hours that can be worked by persons who undertake Safety Critical Work as defined by the regulations. During the Works contractors who have employees carrying out Safety Critical Work must be able to demonstrate compliance with the regulations.

6.7 Knowledge and Understanding of English

Supervisory staff on the Works must have sufficient knowledge of English (both spoken and written) to understand and relay safety information, instructions and training to all personnel.

6.8 Alcohol and Drugs

All personnel engaged in the Works must comply with Network Rail's current Policy on Alcohol and Drugs. A copy of this will be provided by Network Rail's Representative.

6.9 Clothing and Personnel Protective Equipment

All persons engaged in the Works must wear high visibility clothing of an approved colour, type and design (including retroreflective strips) acceptable to Network Rail. The personnel protective clothing must be worn correctly and kept in a clean condition.

6.10 Removal of Contractor's Employees

Network Rail may object to and require the immediate removal from the Works Site of any person thereon who in the opinion of Network Rail's Representative is not in a fit condition to carry out their duties, or is liable to endanger their own health and safety or that of others. Such persons will not be permitted further access to the Works Site without the written agreement of Network Rail's Representative.

6.11 Registers and Certificates

All registers, site diaries and certificates relevant to the Works must be available for inspection by Network Rail at the Works Site or other locations agreed with Network Rail's Representative.

6.12 Screens, Hoardings and Lights

Temporary screens, hoardings, guard rails, barriers, fans, protective sheeting, fencing, etc, necessary to ensure the safety and protection of the Railway, the Works and all persons in the vicinity of the Works shall be designed, constructed, maintained and modified as appropriate and removed when no longer required in accordance with agreed method statements and shall not effect signal sighting, places of safety or affect or impair the vision of train drivers.

6.13 Notifications of Accidents to Network Rail

All accidents and occurrences causing damage to property or potentially affecting the safe working of the Railway; together with all Reportable Injuries and Dangerous Occurrences as defined in the Reporting of Injuries, Diseases

and Dangerous Occurrences Regulations 1995 (as amended from time to time) must be reported to Network Rail.

Details of all such events shall be recorded in a format agreed with Network Rail's Representative and a copy sent to Network Rail within 24 hours of any such event.

6.14 Storage and Clearance of plant equipment and materials

All plant equipment and materials shall be kept safe and secure when not in use and shall be located as to avoid opportunity for trespass and vandalism on or directed against the Railway or land in the ownership of Network Rail.

7. Working Methods near the Railway

7.1 Use of Plant and Equipment Adjacent to the Railway Infrastructure

No construction plant, equipment or materials shall be used or handled in such a manner that in the event of mishandling or failure they come within a vertical plane 3.0 meters from the nearest edge of the nearest rail on which trains may run or, on a station platform, within 3.0 meters of the platform edge unless previously proposed in a method statement which has been accepted by Network Rail's Representative. (refer to paragraph 8.3.1)

7.2 Stability of Track

Excavation near the Railway Infrastructure shall be in accordance with agreed method statements and not commence until all measures required to monitor and maintain the stability of the track and/or structure have been implemented and Network Rail's Representative has indicated that there is no further objection to proceeding with the excavation work.

7.3 Emergency Action

A detailed procedure for dealing with emergencies relating to the Work Site shall be produced in consultation with Network Rail's Representative. This procedure shall be accepted in writing by Network Rail before work starts and shall be reviewed and updated as circumstances vary. Key actions shall be set out on a poster to be prominently displayed in locations to be agreed with Network Rail's Representative. These must include the method of stopping trains in the event of an incident that could affect the safety of trains and/or persons and, in the case of an electrified line, how to arrange to have the current switched off.

All staff and operatives shall be made fully conversant with this procedure. Auditable checks should be undertaken at intervals agreed with Network Rail's Representative to monitor this understanding and evidence thereof shall be maintained on site and available for inspection by Network Rail's Representative.

7.4 Rail Traffic during a Possession or Isolation

During a possession it may be necessary for engineers, trains and/or on-track machines to pass through the Work Site by prior arrangement. This will necessitate the temporary clearance of the railway track and cessation of those activities that could affect their passage or the safety of personnel on or near the line.

8. Electrified Railways

8.1 Electric Traction Equipment

Attention is drawn to the presence in some areas of electric traction equipment associated with either overhead line equipment above and at track level and/or third or fourth conductor rails at track level. Either system carries a potentially lethal electric current and the close proximity to this equipment can cause death or severe injury.

Warning notices acceptable to Network Rail shall be erected in prominent positions agreed by Network Rail's Representative.

All requirements as advised by Network Rail as to the earthing and bonding (or electrical segregation) of metalwork and foil covered sheet materials shall be complied with.

8.2 Robust Procedures for Safe Access and Safe Working Procedures

Further robust procedures (in addition to those referred to in paragraph 2.2) shall be established and maintained to ensure safe access for all persons to the Railway Infrastructure and safe working practices where the Railway Infrastructure is electrified. These procedures must be submitted to Network Rail's Representative for written approval prior to the Works being undertaken.

8.3 Precautions

Electric traction equipment is charged at high voltage and unless Isolation and permit to work arrangements are in force shall be treated as being live at all times and the following precautions shall be observed:

8.3.1 Overhead Line Equipment

Work shall not be carried out, cranes or other plant erected, operated and/or dismantled or materials stored within the prohibited space which is that space within a radius of 3.0 metres of the live overhead equipment together with anywhere vertically above this space.

The figure of 3.0 metres used in determining the prohibited space shall be increased by the length of any tool, equipment and/or material being handled. However, work on the track, platforms, walkways and the like below the overhead equipment is permitted without special precautions provided that tools, equipment and/or materials are not at any time raised above head height.

Long objects, which shall include but not limited to, pipes, scaffolds, poles ladders and/or long handled tools or any object of such length that if carried vertically could infringe on the prohibited space shall be carried horizontally below head height.

Electrically conductive surveying equipment shall not be used within 3.0 metres of any overhead line equipment or any rail.

Any disturbance of or any attachment to any equipment forming part of the electric traction system shall only be carried out with the full consent of Network Rail.

8.3.2 Third or Fourth Rail Electrification

Work in the vicinity of the third or fourth rail electrification will involve the provision of special protection or isolations to the equipment.

Electrically conductive surveying equipment shall not be used within 3.0 metres of any rail inducing electrified third rail.

8.4 **Protective Screens**

At the sole discretion of Network Rail's Representative it may be appropriate for protective screens adjacent to overhead line equipment or third/fourth rail electrification to be provided to enable certain works to continue without Isolations being required.

8.5 Crash Decks

At the sole discretion of Network Rail's Representative it may be appropriate for crash decks to be provided to enable certain works to be carried out above the Railway without Possessions and/or Isolations being required.

8.6 Temporary Access Structures

At the sole discretion of Network Rail's Representative it may be appropriate for a temporary access structure above the overhead line equipment to be provided to permit continued working without Isolations being required.

8.7 Erection and Removal of Screens and Platforms

Erection, inspection, maintenance and removal of screening and/or platforms and/or access structures shall be carried out under the protection of Isolations and Possessions unless otherwise agreed by Network Rail.

Appendix 1N - Special Requirements in Relation to Cable & Wireless Worldwide

The terminology used in these special requirements shall have the meanings assigned to them as detailed in this section with the following amendments:

"Contractor" means the Company as defined in the Agreement; and

"Contract" means the Agreement.

"Company" means Cable & Wireless Worldwide

Special requirements in relation to Cable & Wireless Worldwide are as follows:

1. Introduction

This document sets out the procedure that will apply when Other Parties intend or are undertaking works in the vicinity of Cable & Wireless Worldwide apparatus.

2. **Purpose of Document**

This document provides a means by which the Cable & Wireless Worldwide specific special requirements relating to their apparatus regardless of it being situated in the public highway / road, private street, land or any other areas is made aware to Other Parties.

3. **Scope**

This document will be presented to Other Parties or Contractors to encourage those undertaking works within the vicinity of Cable & Wireless Worldwide apparatus to refer to and comply with. This is in order to protect where necessary the Cable & Wireless Worldwide apparatus and to avoid damage to the apparatus and loss of service.

A National Joint Utilities Group (NJUG) document NJUG 9 titled "Recommendations for the Exchange of Records of Apparatus between Utilities" provides useful reference material.

It should be noted that, where appropriate, additional information on avoiding danger from underground apparatus is contained within the HSG47 guidance book titled "Avoiding Danger from Underground Services."

4. Cable & Wireless Worldwide Network and Apparatus

Damage to Cable & Wireless Worldwide apparatus is extremely disruptive and can be expensive to repair, especially where long lengths of cable have to be replaced.

In order to maintain the network integrity and minimise disruption to service, it is essential that disturbances are absolutely minimal. When working within the vicinity of Cable & Wireless Worldwide apparatus, extreme care is necessary in order to avoid costly repairs. The Other Parties / Contractor shall make every effort to ensure that disturbance of Cable & Wireless UK apparatus is no more than is absolutely necessary for the completion of the works in accordance with their contract. It should be noted that

it is an offence to interfere with Cable & Wireless Worldwide apparatus without first contacting the company for advice.

5. Plant Records

It is the responsibility of the Other Parties undertaking works which may affect Cable & Wireless Worldwide apparatus to obtain all relevant Cable & Wireless Worldwide plant records from our agent Atkins Global prior to works commencing. This may be done by contacting the Atkins Global Plant Enquiries Team listed in section 19.

Plant records for such enquiries will generally be provided within 10 working days of receipt and in compliance with the New Roads and Street Works Act 1991 [NRSWA] requirements.

6. **Definitions**

The following definitions are applicable in this document:

- 1. "Apparatus" means all surface or sub-surface equipment and plant used by Cable & Wireless UK including any associated cables or ducts owned, leased or rented by Cable & Wireless Worldwide.
- 2. "Cable" means any polythene or other sheath containing optical fibres or metallic conductors.
- 3. "Depth of cover" means the depth from the surface to the topmost barrel of the duct nest, in the case of ducts encased in concrete, to the top of the concrete, and in the case of directly buried cable, the top of the cable.
- 4. "Jointing chamber" means any manhole, surface box or other chamber giving access to Cable & Wireless Worldwide apparatus or their network.
- 5. "Utility" means an organisation licensed to provide gas, water, electricity, Cable TV or telecommunications services.
- 6. "Developer" means an organisation licensed to develop industrial/ residential premises or given licence to connect to utility apparatus.
- 7. "Contractor" means the individual, firm or company contracted to undertake the work for a Utility or Other Parties.
- 8. "Other Parties" means the Utilities, Highway Authorities, Developers, Street Authority (Roads Authority Scotland).
- 9. "Site" means the location of, or in the vicinity of, the various works.

7. Requirements

Prior to commencing any work or moving heavy plant or equipment over any portion of the site, the Other Parties or Contractor shall notify Cable & Wireless Worldwide of their intentions. This may be done by contacting Cable & Wireless Worldwide, contact listed in section 19.

Upon receipt of this notification, Cable & Wireless Worldwide will identify if their apparatus is affected. If any Cable & Wireless Worldwide apparatus is affected by the works then they will arrange for the necessary records and confirm details of Cable &

Wireless Worldwide apparatus and network operated within the affected area or adjacent to the proposed work site.

7.1 Location of Plant

It is the responsibility of the Other Parties or Contractors to undertake adequate plant location procedures. These may include searches for metallic cables which must be performed by actively inducing a signal in a cable conductor via a transmitter. A passive search is not considered sufficient.

Before applying a tracing signal to the Cable & Wireless Worldwide apparatus, the Other Parties or Contractors shall seek confirmation from Atkins Global that the Cable & Wireless Worldwide apparatus will not suffer any disruption to its networks normal workings as a result of the nature of the signal being induced.

7.2 Trial Excavations

Optic fibre cables are very susceptible to damage from excavation tools. They are not electrically conductive and cannot be located by radio induction methods. Once an approximate location is known, the exact location must be ascertained by means of hand dug pilot holes.

Where the work to be carried out by the Other Party or Contractor involves excavation in the vicinity of our clients' apparatus, the Other Party or Contractor shall, by trial excavation at his own expense, determine the exact location and depth of the Cable & Wireless Worldwide apparatus.

All excavations adjacent to the Cable & Wireless Worldwide apparatus are to be carried out by hand until the extent and /or location of the apparatus is known.

All excavation work shall be executed in accordance with the current issue of Health and Safety series booklet HSG47, Avoiding danger from underground services.

8. **Depths of Cover**

The Other Party or Contractor should note that the minimum depths of cover for Cable & Wireless Worldwide apparatus which shall be maintained together with specified separation requirements. Where the minimum depths of cover specified by Cable & Wireless Worldwide cannot be maintained, the Other Party or Contractor shall at their own expense, carry out the instructions of Cable & Wireless Worldwide requirements for the protection or diversion of their apparatus.

The Other Party or Contractor should have particular regard to the possibility of encountering Cable & Wireless Worldwide apparatus (including ducts and cables), at depths of cover other than that reported.

Surface cables (such as cables on bridges or walls) which are liable to be placed in danger from the Other Parties or Contractors works shall be protected, at the Other Parties expense, as directed by the Cable & Wireless Worldwide representative.

9. Separation

Reference should be made to HSG47 to ensure that adequate separation is achieved. The following details outline the specific requirements of Cable & Wireless Worldwide and capture the HSG47 requirements:-

9.1 High Voltage Cables

High voltage single core cables of 1000 V and above shall have a minimum clearance from Company Apparatus of 500 millimetres.

High voltage multi-core cables of 1000 V and above shall have a minimum clearance from Company Apparatus of 350 millimetres.

In exceptional circumstances where the above clearances cannot be maintained, the separating distance may be reduced to a minimum of 175 millimetres. In such circumstances, concrete, of a quality as directed by the Company Representative, must be inserted to completely fill the space between the High Voltage cable and the Company Apparatus, in accordance with the requirements of the Company Representative. Any further services must have a minimum clearance of 250 millimetres from the concrete.

9.2 Low Voltage Cables

Low voltage cables of less than 1000 V shall have a minimum clearance from Company Apparatus of 180 millimetres. In exceptional circumstances where the above clearance cannot be maintained, the separating distance may be reduced to a minimum of 75 millimetres.

In such circumstances, concrete, of a quality as directed by the Company Representative, must be inserted to completely fill the space between the services, in accordance with the requirements of the Company Representative. Any further services must have a minimum clearance of 250 millimetres from the concrete.

9.3 Ancillary Electrical Apparatus

Lamp posts, traffic posts and other such ancillary electrical apparatus shall have a minimum clearance of 150 millimetres from underground Company Apparatus and 600 millimetres clearance from above ground Company Apparatus.

9.4 High pressure gas mains and other Undertakers plant/equipment

High pressure gas mains shall have a minimum clearance of 450 millimetres from Company Apparatus. All other undertakers' plant and equipment, when running in parallel with Company Apparatus, shall have a minimum clearance of 200 millimetres. Where gas mains cross Company Apparatus, the minimum clearance shall be 200 millimetres. All other undertakers' plant and equipment, when running across Company Apparatus, shall have a minimum clearance of 100 millimetres. NJUG Volume 1, Guidelines on the positioning and colour coding of underground utilities' apparatus refers.

9.5 **Other Undertakers plant**

Other undertakers' plant and equipment which runs in parallel with Company Apparatus shall have a minimum clearance of 200 millimetres. All other undertakers' plant and equipment when running across Company Apparatus, shall have a minimum clearance of 100 millimetres.

9.6 Tramways

Each separating distance shall be individually agreed with the Company Representative.

10. Jointing Chambers

10.1 **Protection**

Footway type jointing chambers are not designed to withstand carriageway loadings.

Where such chambers are liable to be placed at risk, either temporarily or permanently, from vehicular traffic or from the movement of plant and/or equipment, they will need to be adequately protected. Alternatively, they may have to be demolished and rebuilt to carriageway standards, at the Other Parties or Contractors expense under supervision of Cable & Wireless Worldwide representative.

All Cable & Wireless Worldwide jointing chambers and / or other access points shall be kept clear and unobstructed. Access for vehicles, winches, cable drums and / or any further equipment required by Cable & Wireless Worldwide for the maintenance of its apparatus, must be maintained at all reasonable times.

10.2 **Access**

The covers to Cable & Wireless Worldwide jointing chambers and / or apparatus shall only be lifted by means of the appropriate keys and under the direct supervision of a Cable & Wireless Worldwide representative. Other Parties or Contractors shall not enter any Cable & Wireless Worldwide jointing chamber and / or apparatus unless under the supervision of a Cable & Wireless Worldwide representative and in any case not before the mandatory gas test has been carried out in the presence of Cable & Wireless Worldwide representative and such checks have shown it to be safe to enter the Cable & Wireless Worldwide chamber and / or apparatus. The Other Parties or Contractors shall be given reasonable access to Cable & Wireless Worldwide apparatus and chambers when required.

11. Notification Periods

Where the Other Parties or Contractors works or the movement of plant or equipment may endanger Cable & Wireless Worldwide apparatus, the Other Party or Contractor shall give the Cable & Wireless Worldwide agent Atkins Global at least 7 working days notice in writing of the intended date to commence operations.

No excavation should be made without first consulting the relevant Cable & Wireless UK apparatus layout drawings, which will be made available from the Cable & Wireless UK agent Atkins Global on request and allowing 28 working days for processing the relevant drawings. However, should this not be possible, direct contact should be made

to the Atkins Global Bristol Plant Enquiries Team as soon as possible to assess the situation.

When excavating, moving or backfilling (including use of Foamed Concrete for Reinstatements – FCR) around Cable & Wireless Worldwide apparatus, Atkins Global (as agent for <u>Cable & Wireless Worldwide</u>) shall be given adequate prior written notice of the Other Parties or Contractors intentions, in order that the works may be adequately supervised. Such notice shall not be less than 3 working days.

12. Excavation and Backfill

All excavations adjacent to Cable & Wireless Worldwide apparatus are to be carried out by hand until the extent and or location of the Cable & Wireless Worldwide apparatus is known.

Use of mechanical borers and / or excavators shall not be used without the supervisory presence of a Cable & Wireless Worldwide representative or a given exemption.

Shuttering of the excavation or support to Cable & Wireless Worldwide apparatus, at the Other Parties or Contractors expense, shall be used as directed by the Cable & Wireless Worldwide representative.

At least 7 working days notice must be given to Cable & Wireless Worldwide in order that any special protective measures may be required to protect Cable & Wireless Worldwide apparatus, at the Other Parties or Contractors expense, when equipment such as pile driving, explosives, laser cutting high powered RF equipment or RF test gear, is to be used in conjunction with the works.

Other Parties or Contractors are advised to refer to the National Joint Utilities Group [NJUG] 4 Document which outlines the identification of small buried mains and services.

13. Foam Concrete

If foam concrete is being used as the backfill material, it shall not be used either above or within 500 millimetres of any Company Apparatus. A suitable material in accordance with the specification for the Reinstatement of Openings in Highways shall be substituted.

14. Attendance of Company Representative

If a situation requires the attendance on site of a Cable & Wireless Worldwide representative for a continuous period of more than 6 hours, suitable facilities shall be provided by the Other Party or Contractor, at their expense, to meet the office and ablution requirements. If a situation arises that requires urgent attention Cable & Wireless Worldwide will endeavour to attend site within 2 hours for all other occasions arising, 24 hours.

15. Damage Reports

In the event of any damage whatsoever occurring to our Cable & Wireless Worldwide apparatus, the Other Party or Contractor shall immediately inform Cable & Wireless Worldwide by contacting Julia Burgoyne, (for contact details please refer to section 19).

All relevant costs of any subsequent repair and / or removal of the Cable & Wireless Worldwide apparatus shall be charged to the Other Party or Contractor, irrespective of who affects the repair.

The above requirements do not relieve the Other Party or Contractor of any of their obligations under their contract.

16. References

The following reference materials relate to this document:

Document Number	Document Title					
Volume B	Generic Documents for Tendered and Period Contract Works for C&W.					
ISBN 0 10 542291 6	New Roads and Street Works Act 1991					
0 7176 1744 0	HSG47 Avoiding Danger from Underground Services					
NJUG 4	The Identification of Small Buried Mains and Services					
NJUG 7	Recommended Positioning of Utilities' Apparatus for New Works on New					
	Developments and in Existing Streets					
NJUG 9	Recommendations for the Exchange of Records of Apparatus Between Utilities					
ISBN 0-11- 552546-7	Code of Practice for Recording of Underground Apparatus in Streets (010503)					

17. Document History

Issue Status	Summary of Changes from Previous Version	Date
5	Major revision to incorporate omitted items from client's document	January 2003
	SOE 4461 Issue 7	
Issue 6	Change doc reference from NRSWS to OSM	March 2002

18. Office Address Details

Manchester Office
Cable & Wireless Worldwide
Unit M
Atlas Business Park
Wythenshawe

Glasgow	Manchester
G3 7HR	M22 5RR
Bristol Office	
Cable & Wireless Worldwide	
Unit 1,	
Tamar Road	
St Philips	
Bristol	
BS2 0TY	

19. Street Works Team Contacts for Cable & Wireless Worldwide

Function	Name	Job Title	Address	Phone	Mobile	Fax	Email Address
Co-ordination	Chris Nesbitt	NRSWA Legislation Officer	n/a	07776 151506	07776 151506	n/a	christopher.nesbitt@cw.com
BCM – Business Continuity Management	Complain ts Team	Complaints Analyst	n/a	0800 048 1411	n/a	n/a	complaintsteam@cw.com
Liability Claims	Julia Burgoyne	Major Incident Resolution Coordinator	Bristol Office (see above)	01454 895114	07803 259857	n/a	julia.burgoyne@cw.com
Diversionary Works	Samanth a Wilkinson	Diversionary Works Project Controller	Manchester Office (see above)	0161 423 2740	n/a	n/a	samantha.wilkinson@cw.com
Emergencies (24 Hour) Faults and Defects	CMC	Customer Management Centre	n/a	08456 021585	n/a	n/a	n/a
Plant Enquiries - Cable & Wireless Inc. Thus Plc, (formerly Scottish Telecom), Your Comms (formerly Norweb), Energis & Mercury Communications	Plant Enquiries Team	n/a	Atkins Global PO Box 290 500 Aztec West, Almondsbury, Bristol, BS32 4RZ	01454 662881	n/a	01454 66333 0	Osm.Enquiries@atkinsglobal.com

Appendix 10 – NOT USED

Appendix 1P - Not Used

Appendix 1Q - NOT USED

Appendix 1R – NOT USED

<u> Appendix 1S – NOT USED</u>

Appendix 1T - Special Requirements in Relation to Trafficmaster

Terminology used in these special requirements shall have the meanings assigned to them as follows:

"Contractor" means the Company as defined in the Agreement; and

"Contract" means the Agreement

"Overseeing Organisation" means

1.) In these Special Requirements, the following terms shall have the Meanings assigned to them:

- a.) 'Company' means Trafficmaster Ltd
- b.) 'Company's Representative' means the Infrastructure Maintenance Manager or Designated Staff of the said 'Company' defined at 1.a of these Special Requirements or its' Authorised Representatives and/or Agents.
- c.) 'Apparatus' means all surface or sub-surface equipment and plant including any associated cabling and/or ducting owned, leased or rented by the said 'Company' defined at 1.a of these Special Requirements.
- 2.) Before commencing any work or moving heavy plant or equipment over any portion of the site, the contractor shall confirm details of the Apparatus within the site with the Company's Representative, who can be contacted at the following offices:

ADDRESS	TELEPHONE NUMBER	FAX NUMBER
Kyle Hutton and	01234 759140	01234 759145
Paul Dobing	01234 759112	
Infrastructure Maintenance		
Team		
Trafficmaster Ltd		
University Way		
Cranfield		
Beds		
MK43 0TR		

3.) Where such details show that the works or the movement of plant or equipment may endanger any Apparatus the Contractor shall give the Company's Representative at least two months written notice, detailing how the works will affect apparatus, of the date on which it is intended to commence such works or the movement of plant or equipment in order that the presence of any sub-surface Apparatus, particularly surface running cabling, is adequately protected from damage and such protective measures shall be to the satisfaction of the Company's Representative.

4.) In the event of a Company marker being disturbed for any reason it shall not be replaced other than in the exact position and to its former depth unless the repositioning is carried out at the direction and under the supervision of the Company's Representative.

- 5.) The Contractor shall take particular care in relation to the protection of the Apparatus, where such Apparatus includes the presence of cameras and equipment boxes. The Contractor should particularly note that damage to such Apparatus is extremely disruptive to the Company network and costly to reinstate. The Contractor shall make every effort to avoid the disturbance of Apparatus more than is absolutely necessary for the completion of the works in accordance with the contract.
- 6.) In the event that the planned works will results in a need for Apparatus to be removed, the Contractor must provide the Company with at least one month's notice in order to prepare the Apparatus for removal by the Company's Representative. In each case details of the planned works, including time scales, must be submitted to the Company in order to minimise disruption of the Company network.
- 7.) When excavating, moving or backfilling around Apparatus, the Company's Representative shall be given adequate written notice, which shall not be less than one week, of the Contractors intentions in order that he may supervise the works. The Contractor should note that the normal depth of cover for Apparatus and ducts is as follows:
 - a.) In carriageways 600 mm, which is to be maintained.
 - b.) In footways 450mm, which is to be maintained.

Where the 600/450 mm depth of cover cannot be maintained the Contractor shall carry out the instructions of the Company's Representative' for the protection of Apparatus and such actions that follow from the Company's Representative's instruction shall be supervised by the Company's Representative. Where the required depth of cover cannot be maintained over cabling, such cables as are affected shall be enclosed and protected in UPVC ducts to be supplied by the Company as directed by the Company's representative.

With regard to excavation in the vicinity of any Apparatus and ducts the Contractor shall have particular regard to the possibility of reduced cover and the encountering of Apparatus and ducts of cover less than that given at a.) and b.) above.

- 8.) All excavation adjacent to Apparatus shall be carried out by hand until the exact extent and/or location of Apparatus is known. Mechanical borers and/or excavators shall not be used within 1.0 metres of Apparatus without the supervisory presence of the Company's Representative. To prevent any movement of Apparatus during excavation, complete shuttering shall be used as directed by the Company's Representative if:
 - a.) Excavation is deeper than the depth of cover of adjacent Apparatus.
 - b.) Excavation is within 1.0 metres of Apparatus in stable soil.
 - c.) Excavation is within 5.0 metres of Apparatus in unstable soil.

If the after the completion of the works the Contractor intends to use any of the following:

- i.) Pile driving equipment within 10.0 metres of Apparatus.
- ii.) Explosives within 20.0 metres of Apparatus.
- iii.) Laser equipment within 10.0 metres of Apparatus.

the Contractor shall advise the Company's Representative, giving at least two weeks' notice, in order that any special protective measures for the Apparatus affected may be arranged.

- 9.) The covers to Company Apparatus shall only be opened by means of appropriate keys obtained from the Company's Representative and under the direct supervision of the Company's Representative. No employee of the Contractor or any sub-contractor employed by the Contractor shall enter any Apparatus of the Company unless under the supervision of the Company's Representative. The Company's Representative shall be given reasonable access to all Apparatus and Chambers when required.
- 10.) In the event of any damage whatsoever to the Apparatus, the Contractor shall immediately inform the Company, the Contracting Authority and (if required) the Emergency Services.
- 11.) Compliance with the above requirements shall not relieve the Contractor of any of his obligations under the contract.

Appendix 1U - Special Requirements in Relation to BP

Refer to the third party Agreement with BP and the following document:

CONDITIONS AND RESTRICTIONS FOR WORK ACTIVITIES IN CLOSE PROXIMITY TO BP PIPELINES (July 2009)

Appendix 1V - Special Requirements in Relation to Shell

Refer to the third party Agreement with Shell and the following document:

CONDITIONS AND RESTRICTIONS FOR WORK ACTIVITIES IN CLOSE PROXIMITY TO BP and SHELL PIPELINES May 2005



Aberdeen Western Peripheral Route / Balmedie-Tipperty AWPR / B-T Managing Agent, Aberdeen Business Centre, Willowbank House, Willowbank Road, Aberdeen AB11 6YG

Tel: 01224 332322 | Fax: 01224 322 361 Email: <u>enquiries@awpr.co.uk</u> | Web: <u>www.awpr.co.uk</u>

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