

Misalignments between Infraco Proposals and SDS Design

TIE LIMITED

POSITION PAPER

relating to

the agreement between tie Limited

and

Bilfinger Berger (UK) Limited / Siemens plc / Construcciones y Auxiliar de Ferrocarriles consortium

in connection with the works authorised by the

Edinburgh Tram (Line One) Act 2006 and the Edinburgh Tram (Line Two) Act 2006

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1. INTRODUCTION

- 1.1 As part of a “mediation marathon” scheduled for 29 June – 6 July, BSC have raised a perceived difference in interpretation of the “misalignment” process to regularise the differences between Infraco Proposals and the SDS design.

2. THE DISPUTE / DISAGREEMENT

- 2.1 BSC believe that they are entitled to recover any additional construction costs arising from a misalignment. tie do not agree.

3. TIE'S POSITION ON THE DISPUTE / DISAGREEMENT

- 3.1 tie consider that Clauses 4.7 and 4.8 of the Novation Agreement clearly obligates tie to pay for additional SDS works which may result from the conclusions set out and recorded in the respective Development Workshops. Such Change Orders have already been issued.
- 3.2 tie consider that BSC may have entitlement to recover construction costs if the misalignment workshop output amends the pricing assumption in Schedule Part 4 Clauses 3.4 and 3.5. This mechanism is the appropriate route to address any legitimate entitlement.

4. REQUIRED OBJECTIVES OF THE MEDIATION

- 4.1 Agreement on the process and any entitlement principles associated with Misalignment Workshops.

5. TIE'S FURTHER COMMENTS ON AND UNDERSTANDING OF INFRACO'S POSITION ON THE DISPUTE/ DISAGREEMENT

- 5.1 tie understands that BSC consider that all potential consequences of a misalignment should be identified, evaluated and paid for by tie, irrespective of whether they formal part of the Infraco Proposals or not.

6. LIST OF SUPPORTING DOCUMENTATION

- 6.1 Novation Agreement – Clauses 4.7 and 4.8
- 6.2 Infraco Contract: Schedule Part Four – Clauses 3.4 and 3.5

- 4.4 The liability of the SDS Provider to the Infraco pursuant to the SDS Agreement shall not be affected by the Infraco's assumption of liability for design to be pursuant to the Infraco Contract.
- 4.5 The SDS Provider acknowledges that the Infraco has and shall continue to rely upon all Services carried out by the SDS Provider.
- 4.6 The warrants that it has received a report from the SDS Provider (annexed at Part B of Appendix Part 7) setting out the misalignments between the Deliverables completed prior to the date of this Agreement and the Employer's Requirements and that it has issued initial instructions (in the form of the letter annexed at Part A of Appendix Part 7) to the SDS Provider in relation to addressing all such misalignments. Upon completion of the work entailed to resolve the misalignments, the SDS Provider confirms to be and the Infraco that such Deliverables shall be consistent with the Employer's Requirements.

4.7 As soon as reasonably practicable, the Parties shall commence and expeditiously conduct a series of meetings to determine the development of the Infraco Proposals and any consequential amendment to the Deliverables (the "**Development Workshops**"). The matters to be determined at the Development Workshops shall be those set out in the report annexed at Part C of Appendix Part 7 (the "**Misalignment Report**"), together with any items identified as "items to be finalised in the SDS/BBS alignment workshops" in Appendix 4 to be dealt with in the following order of priority and objective unless otherwise agreed:

- 1 Roads and associated drainage and vertical alignment with the objective of minimising the extent of full depth reconstruction for roads thus minimising cost and construction programme duration
2. Structures value engineering, including track fixings to structures with the objective of enabling BBS to realise the Value Engineering savings for the structures identified in Schedules 4 and 30 of the Infraco Contract (Pricing and Infraco Proposals respectively)
3. OLE Design with the objective of identifying and agreeing the actions, responsibilities and programme to enable Infraco to implement their proposals for OLE as identified in the Infraco Proposals
4. Trackform with the objective of completing an integrated design to enable BBS to implement their proposals for trackform

provided that in circumstances where compliance with the Employer's Requirements is dependant upon further design development to be undertaken by the Client (and which is out with the Services provided by SDS), the SDS Provider's obligation pursuant to this Clauses 4.2.2(d) shall be limited to having produced or producing designs and Deliverables that are capable of allowing Infraco to develop a design which is compliant with the Employer's Requirements.

- (e) save in respect of any Consents which are the responsibility of **tie** in terms of Clause 19 of the Infraco Contract, the Consents listed at Appendix Part 2 (*Consents Programme*) are all the Design Stage Consents which are required to enable the Edinburgh Tram Network to be procured, constructed, installed, tested and commissioned, and thereafter operated and maintained in accordance with the Infraco Contract;
- (f) it has received no Client Notice of Change or any other instruction from **tie** to vary any term of the SDS Agreement (whether pursuant to Clause 15 and 29.2 of the SDS Agreement or otherwise) and, subject to Clause 9.1 below, it has agreed no variation, alteration of the SDS Agreement; and
- (g) no Change in Law has come into effect or is anticipated to come into effect which would have a material adverse impact on the Deliverables completed or to be completed pursuant to the SDS Agreement

The SDS Provider warrants and undertakes to the Infraco that it shall be liable for any loss or damage suffered or incurred by the Infraco arising out of any negligent act, default or breach by the SDS Provider in the performance of its obligations under the SDS Agreement prior to the date of this Agreement. The SDS Provider shall be liable for such loss or damage notwithstanding that such loss or damage would not have been suffered or incurred by **tie** (or suffered or incurred to the same extent by **tie**) or is different to or arises on a different basis to any loss or damage which would have been suffered or incurred by **tie**.

- 4.3 The SDS Provider undertakes and warrants to the Infraco that its design is consistent with and delivers the Edinburgh Tram Network runtime set out in the Employers' Requirements , which runtime supersedes that set out in the SDS Agreement.

5. Sub-station buildings with the objective of resolving the misalignment between Infraco Proposals and SDS Design with the minimum of changes to accommodate the Infraco Proposals for substations.

The following to be reviewed at the end of the Development Workshop to identify any issues arising from the above items:

1. Earthworks
2. Landscaping
3. OLE Foundations
4. Alignment
5. Site Clearance
6. Tramstops
7. all other items in the Misalignment Report together with any items identified as "items to be finalised in the SDS/BBS alignment workshops" in Appendix 4.

At the Development Workshop, the Parties shall also develop a strategy for co-operation between the SDS Provider and the Infraco to manage design development and the necessary interface between the Infraco's design and the design developed by the SDS Provider.

4.9 The product of the Development Workshops shall be a report signed by each of the Parties to detail the conclusions in respect of each matter and the payments to be made to the SDS provider in respect of the work to be carried out by the SDS Provider as a result of the conclusions set out in the report. Any consequential ~~the~~ Change Orders or instructions shall be appended to such report as and when the same are issued. ~~the~~ shall pay the SDS Provider for the work required for the Development Workshop on an hourly rate basis in accordance with the hourly rates set out in Appendix Part 8 and the SDS Provider agrees that the Infraco shall not be liable to make such payments to the SDS Provider. For the avoidance of doubt, the Infraco and ~~the~~ agree that any amendment to the Deliverables completed prior to the date of this Agreement as set out in this report will be a Mandatory ~~the~~ Change under the Infraco Contract, and a Client Change under the SDS Agreement.

- 3.1 The Construction Works Price is a lump sum, fixed and firm price for all elements of work required as specified in the Employer's Requirements as Schedule Part 2 and the Infraco Proposals as Schedule Part 31 and is not subject to variation except in accordance with the provisions of this Agreement.
- 3.2.1 It is accepted by ~~tie~~ that certain Pricing Assumptions have been necessary and these are listed and defined in Section 3.4 below. The Parties acknowledge that certain of these Pricing Assumptions may result in the notification of a Notified Departure immediately following execution of this Agreement. This arises as a consequence of the need to fix the Contract Price against a developing factual background. In order to fix the Contract Price at the date of this Agreement certain Pricing Assumptions represent factual statements that the Parties acknowledge represent facts and circumstances that are not consistent with the actual facts and circumstances that apply. For the avoidance of doubt, the commercial intention of the Parties is that in such circumstances the Notified Departure mechanism will apply.
- 3.3 Specified Exclusions from the Construction Works Price are:
- a) Utilities diversions (including both the diversion of Utilities and the diversion of any other utilities) and protective works associated with utilities save for the Defined Provisional Sums for those utilities diversions that are to be undertaken by Infraco.
 - b) Work in connection with the St Andrew Square public realm project beyond the tram works. For the avoidance of doubt Tramstops, trackform, track bed, OHLE, road surface refurbishing, associated systems and link works together with any other work shown on the Base Case Design Information are included.
 - c) Ground conditions that require works that could not be reasonably foreseen by an experienced civil engineering contractor based on the ground conditions reports provided to BBS on 20th and 27th of November and 6th December 2007. Additionally the Construction Works Price does not include for dealing with replacement of any materials below the earthworks outline or below ground obstructions/voids, soft material or any contaminated materials.
 - d) Bernard Street public realm project as information provided to Infraco on 28th November 2007.
- 3.3.1 In the event that the Infraco is required to carry out any of the Specified Exclusions, this shall be a Notified Departure.
- 3.4 Pricing Assumptions are:
- 1 The Design prepared by the SDS Provider will not (other than amendments arising from the normal development and completion of designs):
 - 1.1 in terms of design principle, shape, form and/or specification be amended from the drawings forming the Base Date Design Information (except in respect of Value Engineering identified in Appendices C or D to this Schedule Part 4);
 - 1.2 be amended from the scope shown on the Base Date Design Information and Infraco Proposals as a consequence of any Third Party Agreement (except in connection with changes in respect of Provisional Sums identified in Appendix B); and

1.3 be amended from the drawings forming the Base Date Design Information and Infraco Proposals as a consequence of the requirements of any Approval Body.

For the avoidance of doubt normal development and completion of designs means the evolution of design through the stages of preliminary to construction stage and excludes changes of design principle, shape and form and outline specification.

- 2 Design delivery by the SDS Provider has been aligned with the Infraco construction delivery programme as set out in Schedule Part 15 (*Programme*).
- 3 The Deliverables prepared by the SDS Provider prior to the date of this Agreement comply with the Infraco Proposals and the Employer's Requirements.
- 4 That the Design Delivery Programme as defined in the SDS Agreement is the same as the programme set out in Schedule Part 15 (*Programme*).
- 5 That the Infraco shall not suffer any loss and expense of whatever nature as a consequence of any matter identified in the "Assumptions and Constraints Report" in Appendix 2 of the SDS Novation Agreement, including without prejudice to the foregoing generality the following:
 - 5.1 the modifications to the SDS Provider's design process and approvals and consents periods;
 - 5.2 any assumptions or dependencies;
 - 5.3 any matter identified as being at the risk of **tie** or subject to instruction from **tie**;
 - 5.4 any instruction issued by **tie**;
 - 5.5 subject to Clause 10.18, any acceleration (save where Infraco itself decides to accelerate); or
 - 5.6 any strategy.
- 6 That the tram fleet shall comprise 27 Trams.
- 7 That the Trams meet the DKE parameters mentioned in the track alignment criteria document (ULE90130-SW-SPN-00001 v2.1).
- 8 There shall be no impact on the traction power supply system (as demonstrated by the power simulation modelling) as a consequence of a change to the input parameters used in the Traction Power Simulation Modelling.
- 9 Except for normal development and completion of designs (as defined in 1 above), there shall be no changes to the design resulting from the impact of the kinematic envelope of the Trams on the civils design.
- 10 The Urban Traffic Controls (UTC) will allow and have no adverse impact on the Tram operations including run time and punctuality of services as set out in the Employer's Requirements.
- 11 That in carrying out the Infraco Works in accordance with this Agreement, it shall not be necessary to undertake any works outwith the "Earthworks Outline" (as

- defined in paragraph 3.6 below). The Infraco shall not encounter any below ground obstructions or voids, soft material or any contamination however the price for excavation and earthworks is inclusive of any differences between differing sub-soils that may prevail within the Earthworks Outline.
- 12 Subject to paragraph 9 below, in respect of the highways work in Princes Street, Shandwick Place, Haymarket Junction and St Andrew Square, Infraco shall be required only to plane back the existing road structure to a sound base at the underside of the new surface course and replacement of surface course suitable for purpose to suit the revised road surface profile. Full depth reconstruction as the current designs in this area shall not be required.
 - 13 In respect of the Highways and Drainage works at Picardy Place, London Road and York Place and St Andrew Square, Infraco shall only be obliged to carry out works to the extent shown on the Base Date Design Information.
 - 14 Road construction shall be 35mm thin surface course on 55mm binder course on 110mm base course and 250mm type 1 sub-base.
 - 15 The roads as reconstructed in accordance with the SDS design will be adopted by CEC and 'handed back' on or prior to Service Commencement and thereafter CEC shall undertake routine maintenance (sweeping, litter, salting, normal wear and tear and the like) at no cost to Infraco. However for the avoidance of doubt, Infraco remains responsible for any defects in design or construction.
 - 16 Flexible footpath surfacing shall be 30mm HRA on 50mm DBM on 150mm Type 1 base.
 - 17 In respect of footways provided the Infraco has used reasonable endeavours to protect existing kerbs and flags, during the carrying out of the Infraco Works, these existing kerbs and flags can be re-used where available and minimal reinstatement behind kerb lines is required i.e. not wall to wall.
 - 18 Full footway reconstruction in Leith Walk is not required beyond the allowance made in areas where kerb lines are being re-sited.
 - 19 That in respect of Tower Place Bridge, Victoria Dock Bridge and Lindsay Road retaining wall, Infraco shall only be obliged to carry out works to the extent shown in accordance with the Base Date Design Information.
 - 20 That in respect of Morrison Supermarket at the Gyle the Infraco shall not be required to carry out any works in respect of the retaining wall.
 - 21 That in respect of the Depot excavation works, (i) the volume of excavation shall be 80,000m³, and (ii) the depot excavation will be handed over to Infraco pumped dry with a firm sound formation.
 - 22 That in circumstances where, to maintain the Programme, the Infraco carries out works or procures materials or works prior to the issue of Issue for Construction drawings, no amendment to the works carried out, or works or materials procured shall be required as a consequence of the subsequent issue of the relevant Issue for Construction drawings.
 - 23 That the Code of Construction Practice will be followed by Infraco except where relaxations from the hours of working outside the hours specified in the Code of

Construction Practice are specifically stated in Schedule Part 15 (*Programme*) and that CEC shall grant such relaxations in circumstances where the Infraco has submitted a competent application in order to achieve such relaxation.

- 24 That in relation to Utilities the MUDFA Contractor and/or Utility shall have completed the diversion of any utilities in accordance with the requirements of the Programme save for utilities diversions to be carried out by the Infraco pursuant to the expenditure of the Provisional Sums noted in Appendix B.
- 25 That the Possessions (as defined in Clause 16.1) shall be available as noted in the Programme at Schedule Part 15 (*Programme*).
- 26 Network Rail shall comply with its obligations under the Asset Protection Agreement and the Bridge Agreements as defined in Clause 16.1.
- 27 That, save to the extent that the Infraco fails to comply with its obligations under Clause 16 of this Agreement to provide information properly and reasonably requested in a full and timely manner to Network Rail in the process of developing the APA Works Programme, that neither the timing nor the terms of Network Rail's approval of the APA Works Programme shall adversely affect the Programme.
- 28 Trackslab depth is 385mm with formation condition of 10% CBR.
- 29 That there shall be no special floating track measures required for vibration
- 30 That no protective measures are required in relation to protected trees however new trees will be provided for any trees removed in accordance with the Environmental Management Plan.
- 31 That the Archaeological Officer shall not delay or disrupt the Infraco Works.
- 32 That the programming assumptions set out in Schedule Part 15 (*Programme*) remain true in all respects.
- 33 That third parties shall not carry out works which impact upon the Infraco Works.
- 34 That stray current protection proposals as contained within the Infraco Proposals shall be approved by all relevant Approval Bodies where Infraco has made a competent application .
- 35 That Consent shall be obtained (within a reasonable time having regard to the progress of the Infraco Works) for the use of Railway Ballast from Markle Mains Quarry.
- 36 Demolition or alteration of existing buildings shall only be required as follows:
- Demolition
- Caledonian Ale House (Plot 33)
 - Redpath McLean Office Russell Road (Plot 68)
 - Simloch Property Roseburn Street (Plot 75)
 - Viking International Roseburn Street (Plot 79)

- JB McLean lean-to Roseburn Street (Plot 92)
 - National Car Rental Roseburn Street (Plot 103)
 - Busy Bee Catering Balgreen Road (Plot 130)
 - ATC Hut Stenhouse Drive (plot 150)
- 37 Asbestos shall not be discovered or identified in buildings to be demolished or altered.
- 38 All CCTV cameras and other road equipment will be connected back to the nearest Open Transport Network (OTN) node in either a sub-station or Tramstop.
- 39 That compliance with the Infraco's obligation pursuant to Clause 18.17B and under Schedule Part 13 Section A (Third Party Agreements) to give "due and proper cognisance to third party requirements" (and similar obligations such as to have "due and proper regard to such third party requirements") under the Third Party Agreements shall not cause any delay or disruption to the carrying out of the Infraco Works, on the basis that the Infraco shall have used reasonable endeavours to mitigate the impact of such compliance and that any such third party requirements could not reasonably have been foreseen by an experienced contractor executing works in the operating environment of a UK city.
- 40 That any conditions attaching to any licence or similar arrangement entered into between **tie** and a third party entered into pursuant to any agreement included in Schedule Part 13 Section A (Third Party Agreements) shall not cause any delay or disruption to the carrying out of the Infraco Works, on the basis that the Infraco shall provide all reasonable assistance to **tie** to ensure compliance at all times with any such conditions and shall use all reasonable endeavours to mitigate the impact of such conditions in the carrying out of the Infraco Works.
- 41 That the Standards (as defined in Clause 16.1):
- (a) In relation to NR Immunisation (as defined in Appendix I to this Part 4 of the Schedule) shall be and shall be in the same terms as those which were in force on 12th October 2007; and
 - (b) In relation to the remainder of the APA Works (as defined in Clause 16.1) shall be and shall be in the same terms as those which were in force at the date of this Agreement.
- 42 That design support during the construction period will be provided by the SDS Provider.
- 43 The Public Realm Design Workbook will not introduce any new requirements into the Prior Approvals process which are in addition to the existing requirements set out in the Tram Design Manual and the City of Edinburgh Council's Standard for Streets.
- 3.5 The Contract Price has been fixed on the basis of inter alia the Base Case Assumptions noted herein. If now or at any time the facts or circumstances differ in any way from the Base Case Assumptions (or any part of them) such Notified Departure will be deemed to be a Mandatory **tie** Change requiring a change to the Employer's Requirements and/or the Infraco Proposals or otherwise requiring the Infraco to take account of the Notified Departure in the

- JB McLean lean-to Roseburn Street (Plot 92)
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- 37 Asbestos shall not be discovered or identified in buildings to be demolished or altered.
- 38 All CCTV cameras and other road equipment will be connected back to the nearest Open Transport Network (OTN) node in either a sub-station or Tramstop.
- 39 That compliance with the Infraco's obligation pursuant to Clause 18.17B and under Schedule Part 13 Section A (Third Party Agreements) to give "due and proper cognisance to third party requirements" (and similar obligations such as to have "due and proper regard to such third party requirements") under the Third Party Agreements shall not cause any delay or disruption to the carrying out of the Infraco Works, on the basis that the Infraco shall have used reasonable endeavours to mitigate the impact of such compliance and that any such third party requirements could not reasonably have been foreseen by an experienced contractor executing works in the operating environment of a UK city.
- 40 That any conditions attaching to any licence or similar arrangement entered into between **tie** and a third party entered into pursuant to any agreement included in Schedule Part 13 Section A (Third Party Agreements) shall not cause any delay or disruption to the carrying out of the Infraco Works, on the basis that the Infraco shall provide all reasonable assistance to **tie** to ensure compliance at all times with any such conditions and shall use all reasonable endeavours to mitigate the impact of such conditions in the carrying out of the Infraco Works.
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