

## Schedule 4

### PRICING

**-Key:**

~~[yellow] = outstanding issues from meeting 1/4/08~~

~~[Green] = additional comments from BBS arising from discussions in relation to the Programme and with the SDS Provider at meetings 2 April 2008 or otherwise to give the required degree of clarity as to arrangements (specifically what Accommodation Works are for the purpose of the Provisional Sum).~~

~~Where items are not highlighted it is understood that the drafting reflects agreed positions.~~

Outstanding Commercial Issues:

(i) BBS mark-up of the SDS Price

(ii) VE items 3, 8, 14 and 25 (Appendix C)

(iii) Site Overheads (Appendix G)

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## SCHEDULE FOUR PRICING

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## 1.0 GENERALLY

- 1.1 The Infraco Construction Works Price is detailed in Appendix A to this Schedule Part 4.
- 1.2 The Construction Works Price is on a lump sum basis that is fixed until completion of the Infraco Works and not subject to variation except in accordance with the provisions of this Agreement.
- 1.3 This Part 4 of the Schedule sets out the various categories of items that may be subject to change, together with a mechanism for adjustment of the Contract Price including the Construction Works Price.
- 1.4 No provision within this Part 4 of the Schedule shall entitle the Infraco to more than one payment for any item or other entitlement under the Infraco Contract.
- 1.5 References to clause numbers in Part 4 of this Schedule are to clauses in the Infraco Contract unless otherwise stated.
- 1.6 All rates, lump sums and the like contained in this Schedule Part 4 are exclusive of Value Added Tax and are in Pounds Sterling.

## 2.0 DEFINITIONS USED IN THIS SCHEDULE

- 2.1 ["**Accommodation Works**"] shall have the meaning ascribed to it in the Manual for Construction of Highway Works, BS 6100 'Glossary of Building and Engineering Terms'.<sup>1</sup>
- 2.2 "**Archaeological Officer**" means the archaeological officer appointed by CEC from time to time.
- 2.3 The "**Base Case Assumptions**" means the Base Date Design Information, the Base Tram Information, the Pricing Assumptions and the Specified Exclusions.
- 2.4 The "**Base Date Design Information**" means the design information drawings issued to Infraco up to and including 25<sup>th</sup> November 2007 listed in Appendix H to this Schedule Part 4 .
- 2.5 The "**Base Tram Information**" means the information contained in Tram Supplier's technical response in relation to the Employer's Requirements and in the Tram Supply Agreement (including, for the avoidance of doubt Schedule 23 ([Tram Technical Information Data Version 11])<sup>2</sup>

<sup>1</sup> Definition to be agreed between Scott and Dennis and inserted here.

<sup>2</sup> Reference to be confirmed by BBS (Neil Amner).

2.5 The “**Contract Price**” comprises capital expenditure and revenue expenditure as follows:

	£
Construction Works Price	234,037,664
SDS Price (as defined in the SDS Agreement and the Novation Agreement)	[ ]
Tram Supply Price (as defined in the Tram Supply Agreement)	55,759,709
Infraco Maintenance Mobilisation	1,782,291
Tram Maintenance Mobilisation	2,274,883
Infraco Spare Parts	1,01300,0900
<b>Total of capital expenditure</b>	

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Revenue expenditure comprises amounts payable to the Infraco from the [Service Commencement Date].<sup>3</sup>

- 2.6 “**Defined Provisional Sum**” means a sum included in the Construction Works Price which is provisional but for which Infraco has deemed to have made a provisional allowance for programming, planning and pricing Preliminaries.
- 2.7 “**Issued for Construction**” shall have the meaning as used in Schedule Part 1 (*Definitions and Interpretations*).<sup>4</sup>
- 2.8 A “**Notified Departure**” is where now or at any time the facts or circumstances differ in any way from the Base Case Assumptions save to the extent caused by a breach of contract by the Infraco, an Infraco Change or a Change in Law.
- 2.9 “**Pricing Assumptions**” means the assumptions in respect of the Contract Price as noted in Section 3.4 below.
- 2.10 “**Specified Exclusions**” means items for which Infraco has made no allowance within the Construction Works Price as noted in Section 3.3 below.
- 2.11 “**Traction Power Simulation Modelling**” means the technical modelling simulation prepared by the Infraco dated 2 April 2008[•], reference TSELEN2/484.01r04/STS[•].

<sup>3</sup> Figures to be confirmed by SDS and kept under review.

<sup>4</sup> To be defined in the Infraco Contract

2.12 An "**Undefined Provisional Sum**" means a sum included in the Construction Works Price which is provisional but for which Infraco has not deemed to have made due allowance for programming, planning and pricing Preliminaries.

### 3.0 CONSTRUCTION WORKS PRICE

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 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 ~~to~~ 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 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 20<sup>th</sup> and 27<sup>th</sup> of November and 6<sup>th</sup> December 2007. Additionally the BBS 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 28<sup>th</sup> 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);
  - 1.2 be amended from the ~~scope shown on drawings forming~~ 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 part [●] of 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~~) shall not be amended from the version set out in part [●] of Schedule Part 15 (*Programme*). ~~26 [set out at Appendix J].~~
- 5 That in the event that **tie** and the SDS Provider have agreed mitigation measures in relation to any difference between Design Delivery Programme set out in part [●] of Schedule Part 15 (*Programme*) ~~v-26~~ and the Design Delivery Programme attached as Appendix 2 to the SDS Novation Agreement all such mitigation measures shall be achieved in full.
- 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<sup>5</sup>).
- 8 There shall be no impact on the traction power supply system (as demonstrated by the power simulation modelling) as a consequence of a

<sup>5</sup> Subject to confirmation by BBS.

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 In respect of the highways work in Princes Street, Shandwick Place, Haymarket Junction and St Andrew Square, Infraco ~~shall be required only to plane 's price is based on planing~~ 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. is not included in the Price.~~
- 13 In respect of the Highways and Drainage works at Picardy Place, London Road and York Place and St Andrew Square, Infraco's shall only be obliged to carry out works to the extent shown on price is based on the scope as at the Base Date Design Information.
- 14 Road construction shall be 35mm thin surface course on 55mm binder course on 110mm base course and 150mm type 1 sub-base.<sup>6</sup>
- 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.

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<sup>6</sup> tie to revert after discussion with CEC



- 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 80,000m<sup>3</sup>, and (ii) the depot excavation will be handed over to Infraco pumped dry with a firm sound formation.
- 22 ~~That the Infraco shall not be required to carry out realignment work in relation to Burnside Road unless instructed as a tie Change[TBC – this has been discussed between Scott and Dennis]~~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 part [•] of 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.<sup>7</sup>
- 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.

<sup>7</sup> tie to revert after review of Schedule

- 29 That there shall be no special floating track measures required for vibration30  
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)<sup>8</sup> to give due a 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 ~~which cause delay and disruption are materially different to the Infraco's obligations under this Agreement and~~ could not reasonably have been foreseen by an experienced contractor executing works in the operating environment of a UK city.].[Not agreed]

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 on the carrying out of the Infraco Works.

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 Contract Price and/or Programme in respect of which **tie** will be deemed to have issued a **tie** Change on the date that such Notified Departure is notified by either Party to the other. For the avoidance of doubt **tie** shall pay to the Infraco, to the extent not taken into account in the Estimate provided pursuant to Clause 80.24.1, any additional loss and expense incurred by the Infraco as a consequence of the delay between the notification of the Notified Departure and the actual date (not the deemed date) that tie issue a tie Change Order, such payment to be made by tie following evaluation, agreement or determination of such additional loss and expense pursuant to Clause 65 (Compensation Events) as if the delay was itself a Compensation Event.

3.6 Earthworks Outline in this Schedule Part 4 means:

- 3.6.1 the finished earthworks levels and dimensions (prior to topsoiling) for the construction, where specified, of
- (a) carriageway, hard shoulder, hard strip, footway, paved area, central reserve, verge, side slope;
  - (b) underside of (i) trackslab, (ii) grasstrack concrete, and (iii) ballast;
  - (c) sub-base;

<sup>8</sup> BBS to confirm that the relevant obligations giving rise to this concern are actually stepped down into Schedule 13 Part A.

- (d) fill on sub-base material, base and capping;
- (e) contiguous filter material, lightweight aggregate infill;
- (f) surface water channels;
- (g) landscape areas, environmental bunds.

In all cases of filter drains, except narrow filter drains, the Earthworks Outline shall be the top of the filter material.

- 3.6.2 Where capping or stabilisation to form capping is required by the design in cutting or embankment, the Earthworks Outline shall be as defined in paragraph 1 i.e. as the top of capping.
- 3.6.3 Where an embankment is required by the design to be surcharged, the Earthworks Outline shall be defined as in paragraph 1 and exclude the surcharge.
- 3.6.4 Where permanent storage or stockpiling of topsoil is required, the Earthworks Outline shall be as defined in paragraph 1 and exclude stored topsoil.
- 3.6.5 Where the ground has been subjected to the treatment in respect of ground improvement, mine workings, swallow holes and the like, for the purpose of the definition of Earthworks Outline the existing ground level shall be the level obtained on completion of any such treatment of the areas affected.

Sub-soil Level is defined as the level of the ground after the removal of topsoil.

Surcharge is defined as material placed for the purpose of loading for the periods specified in the design.

#### **4.0 PROVISIONAL SUMS**

- 4.1 Provisional Sums have been allowed for items listed in Appendix B.
- 4.2 These are in two tables. The first table represents Defined Provisional Sums. The second table represents Undefined Provisional Sums.
- 4.3 The procedure for the expenditure of the Provisional Sums is as set out in this section.
- 4.4 Provisional Sums requiring an instruction are those for which a "trigger date" has been identified in Tables 1 and 2 below. Where the "trigger date" is stated to be "not applicable", this is a Provisional Sum not requiring instruction.
- 4.5 Provisional Sums requiring Instruction
  - 4.5.1 tie shall, in conjunction with (where reasonably requested by tie) Infraco and the Infraco Parties prepare the defined requirements and specification for Provisional

Sums which require an instruction sufficiently ahead of Programme so as to achieve the tie Notice of Change by the date shown as the trigger date in Tables 1 and 2 below.

4.5.2 Not later than the dates set out in column entitled "trigger date" of the Provisional Sums Tables tie shall issue a tie Notice of Change instructing the works to which the Provisional Sums requiring Instruction apply, which tie Change shall be a Mandatory tie Change. Failure by tie to issue a tie Notice of Change in accordance with this paragraph shall be a Compensation Event to which Clause 65 applies

4.5.3 After agreement or determination of a **tie** Change for works to which a Provisional Sum applies, the Provisional Sum and, in the case of Defined Provisional Sums the provisional allowance for programming, planning and pricing Preliminaries shall be removed from the Contract Price and Milestone Schedule and the Programme and shall be replaced by the value of the tie Change and programme adjustment determined in accordance with Clause 80.

#### 4.6 Provisional Sums not requiring an Instruction

4.6.1 Where work is carried out in respect of a Provisional Sum which is not a Provisional Sum requiring Instruction, the carrying out of such works will be deemed to be a tie Change.

4.6.2 After agreement or determination of the **tie** Change which is deemed to have occurred pursuant to paragraph 4.6.1, the Provisional Sum and, in the case of Defined Provisional Sums the provisional allowance for programming, planning and pricing Preliminaries shall be removed from the Contract Price and Milestone Schedule and the Programme and shall be replaced by the value of the tie Change and programme adjustment determined in accordance with Clause 80.

#### 5.0 VALUE ENGINEERING (VE) THAT HAS BEEN TAKEN INTO FIRM PRICE<sup>9</sup>

5.1 The Parties have agreed Value Engineering opportunities / savings as noted in Appendix C.

5.2 Subject to the provisions applying to Value Engineering opportunities which are Design to Cost these VE opportunities / savings are not simply targets but are fixed and firm reductions which are reflected in the Contract Price as at the date of this Agreement.

5.3 Infraco shall implement a Value Engineering opportunity provided that:

5.3.1 where the implementation of the Value Engineering opportunity requires instruction by **tie**, **tie** have issued such instruction (which shall be a **tie** Change) sufficiently ahead of the Programme to allow the Value Engineering opportunity to be realised;

<sup>9</sup> Agreed subject to Siemens confirmation.

- 5.3.2 the Value Engineering opportunity is technically feasible;
  - 5.3.3 any Consents required for the implementation of the Value Engineering opportunity are obtained and designs Issued for Construction by the date set out in the Programme
  - 5.3.4 any other Key Qualification applying to the Value Engineering opportunity have been achieved.
- 5.4 NOT USED.
- 5.5 To the extent that a Value Engineering opportunity is implemented:
- 5.5.1 the Employer's Requirements and Infraco Proposals shall be amended to take into account the changes to the Infraco Works as a result of such implementation; and
- 5.6 To the extent that a Value Engineering opportunity is not implemented:
- 5.6.1 Infraco shall carry out the Infraco Works without the amendment to the Employer's Requirements and Infraco Proposals which would have been made had the Value Engineering opportunity been implemented; and
  - 5.6.2 Infraco and tie shall agree amendments to the Milestone Schedule to increase the Contract Price by the saving applying to the Value Engineering opportunity set out in Appendix C and Infraco shall be entitled to include in its next Application for Payment and tie shall pay to Infraco the design costs incurred by Infraco in considering the Value Engineering opportunity up to a maximum amount of £25,000 per Value Engineering opportunity.
- 5.7 Where a Key Condition to achieving a Value Engineering opportunity is "Design to Cost":
- 5.7.1 before implementing the Value Engineering opportunity and sufficiently ahead of the Programme so as not to prejudice the delivery of the Value Engineering opportunity Infraco shall deliver to tie an Estimate setting out the net cost or saving of implementing the Value Engineering opportunity (including design costs).;
  - 5.7.2 tie shall confirm within 10 Business Days of receipt of the Estimate if tie wishes Infraco to proceed with the Value Engineering opportunity.
  - 5.7.3 If tie confirms that it wishes Infraco to proceed with the Value Engineering opportunity,
    - (a) the Employer's Requirements and Infraco Proposals shall be amended to take into account the changes to the Infraco Works as a result of such implementation; and
    - (b) Infraco and tie shall agree amendments to the Milestone Schedule to amend the Contract Price by the difference (if any) between the saving applying to the Value Engineering opportunity set out in Appendix Cand the

actual saving set out in the Estimate provided to tie in accordance with paragraph [ ] and Infraco shall be entitled to claim in its next Application for Payment and tie shall pay to Infraco the design costs incurred by Infraco in considering the Value Engineering opportunity up to a maximum amount of £25,000 per Value Engineering opportunity.

5.7.4 If tie confirms that it does not wish Infraco to proceed with the Value Engineering opportunity paragraph 5.6 shall apply. tie shall be deemed not to wish Infraco to proceed with a Value Engineering opportunity which is design to cost if it fails to respond to an Estimate in accordance with Clause 5.7.2;

5.7.5 Infraco shall use reasonable endeavours to achieve the savings for each Value Engineering opportunity.

## 6.0 FURTHER VALUE ENGINEERING (VE)

6.1 Further Value Engineering opportunities / savings as noted in Appendix D

6.2 This further VE represents that which either one or both Parties is unable to commit to at this stage and will still be considered as a potential target. There are two sub-categories, those with an estimated saving carried to the summary and those as an unspecified item.

6.3 These will be adjusted by applying the provisions of Clause 80 (*tie Changes*). For the avoidance of doubt, no VE that has already be considered by the Parties or that may subsequently be proposed by tie will be considered as a shared saving under Clause 81.3 (*Infraco Changes*).

## 7.0 UTILITIES DIVERSIONS TO BE CARRIED OUT BY INFRACO

7.1 Although tie has let the MUDFA Contract [Multiple Utilities Diversion Framework Arrangement] to carry out the diversion of utility apparatus in the path of the proposed tram route prior to Infraco Works, it will be necessary for some of these works to be delivered by Infraco for the reasons such as:

- they may be unrecorded and not discovered until the Infraco Works are commenced
- they may be discovered during the MUDFA Works but left to avoid a programme overlap or other technical reason
- they may be intrinsically linked to the Infraco Works
- they may require such significant reinstatement work that to carry out under MUDFA may result in significant abortive works

7.2 Where Infraco has been advised of the existence of utility apparatus in advance, whether identified to date or following discovery during the MUDFA Works, any adjustment to the Contract Sum will be made by applying the provisions of Clause 80 (*tie Changes*).

7.3 Those identified to date are noted in Appendix F.

## 8.0 SCHEDULES OF RATES AND QUANTIFIED SCHEDULES OF RATES

- 8.1 Rates for certain items have been established for determining the value of **tie** Changes as noted in Appendix F. These include:
- Rates for utilities diversions
  - Rates for Additional Trams and other items related to the Trams
- 8.2 The rates contained in the appendix F are inclusive<sup>10</sup> of overheads and profit are to be used for the purpose of agreeing changes (positive and negative) noted in Clause 1.2 of this Schedule 4.
- 8.3 The Quantified Schedules of Rates are also contained in Appendix F and they are included for reference only in determining the value of changes as outlined in Appendix ? herein. For the avoidance of doubt the quantities have not been prepared in accordance with any Standard Method of Measurement, are not re-measurable and any errors or omissions contained therein are entirely at the risk of Infraco.
- 8.4 Rates for SDS are as noted in the SDS Agreement / SDS Novation Agreement which also set out the mechanism that shall apply in respect of any design associated with **tie** Changes.

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<sup>10</sup> BBS to confirm. To be resolved between Scott and Dennis.



**APPENDIX A  
CONSTRUCTION WORKS PRICE ANALYSIS**

**A1 CONSTRUCTION WORKS PRICE ANALYSIS  
A2 DETAILED SUMMARY OF CONSTRUCTION WORKS PRICE**

**[Dennis Murray to provide 2 April]**

**APPENDIX B  
PROVISIONAL SUMS AND THE MECHANISM FOR THEIR ADJUSTMENT**

**1.0 Summary of Provisional Sums**

- 1.1 The following tables summarises the Provisional Sums included within the Infraco Works:
- 1.2 Table 1 notes the Defined Provisional Sums for which Infraco has deemed to have made allowance for programming, planning and pricing Preliminaries.
- 1.3 Table 2 notes the Undefined Provisional Sums for which Infraco has not deemed to have made allowance for programming, planning and pricing Preliminaries.

**2.0 Table 1 – Defined Provisional Sums**

[Steve Sharp and Tom Hickman to agree provisional durations for column 4]

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Item	Description of Provision Sum	trigger date	provisional duration	£
1	Pumped surface water outfall at A8 underpass (by depot)	01 June 08		£100,000
2	Scottish Power connections to the Depot and Ingliston Park & Ride	not applicable		£750,000
4	Relocation of Ancient Monuments  – this relates to those monuments noted on the route [SDS drawings ULE 90130-01-HRL 0003B, 6B, 7B, 10B, 12B, 13B, 14B, 15B & 24B refer]  – it does not include cleaning and/or restoration	20 Business Day after BBS raise any queries in respect of issued information		£53,700
4	Additional cost of Network Rail compliant ballast	20 Business Day after BBS provide spec.		£300,000
5	Extra over for revised alignment to Picardy Place, York Place and London Road junctions (see also next item)	01 January 09		£3,340,324
6	Extra over for major utility diversions Picardy Place, York Place and London Road junctions	01 January 09		£3,000,000
7	Extra over for shell grip at	01 August 08		£319,343

junctions			
<b>Carried forward</b>			£7,863,367

Item	Description of Provision	Sum	trigger date	duration	£
	<b>Brought forward</b>				£7,863,367
8	Allowance for Scottish Power connections to new street lights and new traffic signals		not applicable		£115,287
9	Allowance for demolition of existing Leith Walk substation (if required) [SDS drawings ULE 90130-01-SUB- 00023 rev 2, 00046 rev 1,00047 rev 1 and 00051 rev 1 refer]		20 Business Day after BBS raise any queries in respect of issued information		£55,662
10	Urban Traffic Controls [UTC] associated with the delivery of the alignment		01 August 08		£2,500,000
11	Scottish Power connections to Phase 1a sub-stations (8nr x £50,000)		not applicable		£400,000
12	Various Forth Ports requirements including the revised alignment of track at Casino Square, relocated tramstop, junction amendments and removal of 'kink' in alignment from Constitution Street, footpath on south side of Tower Place Bridge and Victoria Dock Bridge		01 October 08		£150,000
13	Forth Ports requirements at Ocean Terminal amendments		01 October 08		£350,000
<b>Total</b>					<b>£11,434,316</b>

### 3.0 Table 2 – Undefined Provisional Sums

Item	Description of Provision Sum	Trigger date	£
1	Accommodation Works	not applicable	£1,000,000
2	Allowance for minor utility diversions	01 October 08	£750,000
3	PICOPS / COSS / Possession Protection Staff support when undertaking works adjacent or over the railway  – see also 4b) below	not applicable	£755,307
4	Archaeological Officer – impact on productivity	not applicable	£405,755
5	Additional Crew Relief Facilities at Haymarket [SDS drawings ULE 90130-02-STP-000126 REV 1 and 000127 rev 1 refer]	20 Business Day after BBS raise any queries in respect of issued information	£49,950
6	Urban Traffic Controls [UTC] associated with the wider area impacts	01 January 10 <sup>11</sup>	£2,500,000
7	Forth Ports requirements for design and construction of by-pass road to adoptable standard	01 October 08	£400,000
8	Forth Ports requirements for Lindsay Road amendments	01 October 08	£1,750,000
9	Royal Bank of Scotland requirement for enhancement of Gogarburn Tramstop	01 October 08	£400,000
<b>Total</b>			<b>£8,011,012</b>

### 4.0 Basis

- a) Relocation of Ancient Monuments applies to those on the route only. Any works in respect of ancient monuments in George Street are undefined.
- b) Any costs in connection with PICOPS / COSS / Possession Protection Staff as Network Rail possession support when undertaking works adjacent or over the railway in respect of item 3 of Table 2 above shall relate solely to the possessions planned at

<sup>11</sup> Neil Amner to confirm.

signature of the Infraco Contract. This possession support will be adjusted in the event that Network Rail varies the requirement for PICOPS / COSS or otherwise amends the possession arrangement. However if the possession is amended or extended due to Infraco over-running then any additional possession support will not be recoverable.

## **5.0 Requirement to co-operate**

- 5.1 Infraco shall co-operate with **tie** in the provision of design and pricing information required to satisfy the requirements of the Forth Ports Agreement.
- 5.2 Infraco shall co-operate with **tie** in the provision of pricing information required to satisfy the requirements of the Royal Bank of Scotland Agreement in connection with Gogarburn Tramstop (outline design provided by others).

**APPENDIX C  
IDENTIFIED VALUE ENGINEERING [VE]**

1.0 The following table summarises the agreed identified VE opportunities / savings which are fixed and firm reductions, save for the Key Qualifications noted:

Item	Description of Identified VE Saving	£	Notes	Key Qualifications
1	Delete depot pumping station / storm tanks by utilizing existing gravity system	-£193,526	tie may need to add in cost of a small pump	Subject to tie issuing an instruction to implement the VE opportunity. tie carries specification/acceptance risk and cost of additional pump
2	Build part of Depot now with provision to expand in the future / reduce size of car park facilities	-£230,000	Initial supply of 100 car parking places agreed	Subject to tie issuing an instruction to implement the VE opportunity.
3	Delete under floor lift plant to Depot and utilize mobile jacks (including mobile future proofing)	-£250,000		Subject to tie issuing an instruction to implement the VE opportunity.
4	Delete split vehicle accommodation system at Depot - requirement dependant on tram vehicle selection	-£27,500	Accommodation bodies are in Tram Suppliers offer	Subject to tie issuing an instruction to implement the VE opportunity.
5	Rationalise scope requirement Track Maintenance Equipment at Depot and consider renting	-£27,500		Subject to tie issuing an instruction to implement the VE opportunity.
6	Deletion of one pavement (inner) to Depot	-£36,000	Shown on latest site plan drawings	Subject to tie issuing an instruction to implement the VE opportunity.
7	Delete requirement for concrete apron to security fence at Depot	-£6,080		Subject to tie issuing an instruction to implement the VE opportunity.
8	Delete compressed air system to Depot and utilize 1 or 2 local / mobile compressors	-£54,400		Subject to tie issuing an instruction to implement the VE opportunity.
<b>Carried forward</b>		<b>-£825,006</b>		

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Item	Description of Identified VE Saving	£	Notes	Key Qualifications
	<b>Brought forward</b>	-£825,006		
9	<p>Consolidated VE items including those which result from changes to initial design driven by proximity to BAA runway and EARL decision as follows:</p> <ul style="list-style-type: none"> <li>• changes to initial Depot design driven by proximity to BAA runway (reduced bulk excavation)</li> <li>• reductions in structural loadings (gantry crane reduced in capacity and size impacting on building frame and envelope)</li> <li>• reduction in staff accommodation provision (reduced operational workforce reducing messing facilities, changing rooms, locker space, etc.)</li> <li>• reduction in fit out specification</li> <li>• reduction in domestic utility capacity (reduced building volume and accommodation provision)</li> </ul>	- £2,200,000	Includes reductions in structural loadings (gantry crane reduced in capacity and size impacting on building frame and envelope), reductions in staff accommodation provision (reduced operational workforce reducing messing facilities, changing rooms, locker.	Design to cost but compliant with current technical/design info
10	Delete standby generator and substitute with hardstanding and power connection for portable generator	-£150,000		Subject to tie issuing an instruction to implement the VE opportunity.
11	Material recovery and reprocessing (Infracore); 2 options - reconstituted planings & Type 1R	-£500,000		Level of saving is subject to adjustment of quantity of this item based on the final design.
	<b>Carried forward</b>	- £3,675,006		

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Item	Description of Identified VE Saving	£	Notes	Key Qualifications
	<b>Brought forward</b>	- £3,675,006		
12	Reduce kerb and associated re-instatement of pavement	-£100,000		Level of saving is subject to adjustment of quantity of this item based on the final design.
13	Reduce drainage run from guideway	-£100,000		Level of saving is subject to adjustment of quantity of this item based on the final design.
14	Rationalise specification for overhead contact system – switchgear is considered "quite onerous"	-£160,000	Price change requested for manual, three position cubicle mounted line isolators throughout, with the exception of the depot where they can be pole mounted. Status of isolator to be shown via SCADA.	
15	Edinburgh Park Viaduct various savings including use of cross heads to eliminate temp works, steel or concrete beams	- £1,470,000	This assumes continuation with 7 span structure	Subject to approval of NEL / CEC and subject to designing to cost
16	Carricknowe Bridge parapet – downgrade from P6 / P5 to N2 (reduce cost of parapet plus knock on effect on deck design / cost)	-£85,000		Subject to approval of design by Network Rail
	<b>Carried forward</b>	- £5,590,006		

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Item	Description of Identified VE Saving	£	Notes	Key Qualifications
	<b>Brought forward</b>	-£5,590,006		
17	A8 Underpass – various initiatives	-£850,000	Changing to a contiguous piled wall/leaner designs	Subject to being able to design to cost
18	Roseburn Street Viaduct – various initiatives	-£1,375,000		Subject to approval of stakeholders – Network Rail and SRU and
19	Water of Leith initiatives	-£150,000		Subject to being Designed to Cost
20	Eight maintenance walkway structures – delete or reduce	-£250,000		Subject to being Designed to Cost
21	Class 7 material conversion	-£300,000		Level of saving is subject to adjustment of quantity of fill required by the final design.
22	Optimize the work site lengths wherever practical to ensure efficient construction outputs	-£300,000		Subject to programme development with CEC
23	Accept more disruption over shorter period to maximize efficiency of construction operations	-£100,000		Subject to programme development with CEC
24	Option to lease UPS provision from supplier rather than purchase	-£300,000		Subject to agreement of Operator
25	Rationalizing spares supplied with the Infraco bid	-£300,000		Subject to agreement of Operator
	<b>Carried forward</b>	-£9,515,006		

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Item	Description of Identified VE Saving	£	Notes	Key Qualifications
	<b>Brought forward</b>	-£9,515,006		
26	PM integration including shared resources and co-location	-£500,000		Subject to BBS / tie agreeing savings in resources and facilities items from BBS and tie costs.
27	Noise attenuation (outside of Roseburn Corridor) 3,650m of fencing	-£50,000		Subject to property owners' claims.
28	Reduce ballasted track thickness from 300mm to 200mm	-£200,000		
	<b>Total</b>	- <b>£11,065,006<sup>12</sup></b>		

<sup>12</sup> This figure to be checked by tie and BBS. The £11,065,000 amount requires adjustment to reflect (i) the £500,000 reduction in item 26 and (ii) the deletion of the £300,000 amount that was item 29.

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**APPENDIX D  
FURTHER VALUE ENGINEERING [VE]**

1.0 The following table summarises provisional further VE opportunities / savings:

<b>Item</b>	<b>Description of Identified VE Saving</b>		<b>Key Qualifications</b>
1	Further project management integration over 3 years	-£500,000	Joint target
2	SDS design scope economy, variation and reduction	-£500,000	Joint target
3	Tramstops – standard finishes to circa 20% - 30% of stops	-£500,000	Joint target
4	Picardy Place level flexing – MUDFA savings	-£500,000	<b>tie</b> led initiative
5	Picardy Place level flexing – construction savings	-£500,000	Joint initiative
6	Value engineer finishes on Edinburgh Park Viaduct and other structures	-£170,000	Subject to approval of NEL / CEC
<b>Total</b>		<b>-£2,670,000</b>	

**APPENDIX E  
UTILITIES DIVERSIONS TO BE CARRIED OUT BY INFRACO**

Please refer to Schedule Part 42.

**APPENDIX F  
SCHEDULE OF RATES AND QUANTIFIED SCHEDULE OF RATES**

**APPENDIX G  
PROCESS FOR AGREEMENT OF VALUE OF TIE CHANGES**

**1.0 Generally**

1.1 The **tie** Representative shall value **tie** Changes in accordance with the following principles:

- (a) Where the Works or Services performed are of similar character and executed under similar conditions to that reflected by the unit rates in this Schedule then such Works or Services shall be valued at the unit rates contained therein as applicable.
- (b) Where Works or Services are not of a similar character, are not executed under similar conditions or involve asset quantities significantly different from those reflected by this Schedule then such Works or Services shall be valued using such Rates contained therein as the basis for valuation so far as this may be reasonable.
- (c) Where the principles of (a) and (b) are considered inappropriate by the **tie** Representative the Services shall be valued on the basis of Actual Cost where possible or estimated Actual Cost, failing which a fair valuation shall be made.

1.2 In respect of a valuation of any work under 1.1(c) the **tie** Representative shall apply head office overheads and profit percentages to the appropriate elements of Actual Cost as follows:

- |     |                         |     |
|-----|-------------------------|-----|
| (a) | Civil Engineering works | 10% |
| (b) | Systems and Track works | 17% |

For the avoidance of doubt the percentages above do not include site related overhead which shall payable by tie.<sup>13</sup>

1.3 The amount of the overheads and profit percentage calculated as part of the valuation of Variations shall be added in the case where the valuation results in an addition and shall be deducted where the valuation results in an omission.

1.4 Where 1.1(c) above is the basis of the valuation of **tie** Changes then the following items shall not be included as Actual Costs under the Infraco Contract.

- 1. Costs not justified by the Infraco's accounts and records.
- 2. Costs not payable under the Infraco Contract.
- 3. Costs arising from the Infraco's Design errors.

<sup>13</sup> tie/BBS to discuss. The qualification on site related overhead is not agreed.

4. Costs arising in respect of loss or damage except as provided for under the Agreement.
5. Costs which should have not been paid to a sub-contractor in accordance with the relevant sub-contract.
6. Costs arising from people who are part of the Head Office Overhead.



**APPENDIX H  
BASE DATE DESIGN INFORMATION**

## APPENDIX I NETWORK RAIL IMMUNISATION

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1. Words defined in Clause 16 or Part 1 of the Schedule shall have the same meaning in this Appendix J to Part 4 of the Schedule. Additionally, for the purposes of this Appendix J;
  - 1.1 **“Immunisation Programme”** shall mean the series of linked tasks , defined [in the form of a Gantt chart in the Infraco’s schedule of works, to be completed within a predetermined time] that when executed to completion will result in NR Immunisation;
  - 1.2 **“Infraco’s Immunisation Strategy”** shall mean the defined set of processes documented in the Infraco’s NR EMC Strategy Plan; and
  - 1.3 **“NR Immunisation”** shall mean, in so far as indicated in Infraco’s Immunisation Strategy as intended to be carried out on the Network, works to mitigate the potential effects to the Railway of electromagnetic interference due to effects of coupled energy or stray current from the operation of the Edinburgh Tram Network traction system.
2. The Infraco has agreed to undertake the NR Immunisation, including management of associated works, programme and approvals together with obligations in relation to the same set out in Clause 16 (*Interface with Network Rail*), subject to Network Rail approving the Infraco Immunisation Strategy in writing before 31 July 2008. In the event that Network Rail have been unable to determine whether or not to approve the Infraco Immunisation Strategy by 31 July 2008 due to material delay on the part of the Infraco in the provision of relevant information reasonably required by Network Rail through **tie**, the deadline for approval specified in this paragraph shall be extended to such later date as the Parties, acting reasonably shall agree.
3. In the event that Network Rail approve the NR Immunisation prior to the deadline referred to in paragraph 2 above:
  - 3.1 Infraco shall procure the delivery of the NR Immunisation;
  - 3.2 subject to any liability in relation to NR Immunisation and associated Possessions being addressed under Clauses 16.72 or 16.73, **tie** shall pay to Infraco 100% of the cost of NR Immunisation subject to a cap for the total cost of such works of £3 million;
  - 3.3. Infraco and **tie** shall jointly to carry out value engineering investigations in respect of NR Immunisation;
  - 3.4 in the event that the actual cost of procuring the NR Immunisation is less than £3 million then **tie** shall (in the case of Infraco, in addition to sums paid or due to be paid under paragraph 3.2) pay one third of the difference between the actual cost and £3 million to both Network Rail and Infraco and be entitled to retain the remaining third of that difference;

- 3.5 in so far as the cost of NR Immunisation exceeds £3 million, Infraco shall be responsible for 100% of the proportion of that cost in excess of £3 million but not exceeding £3.375 million;
- 3.6 subject to any liability in relation to NR Immunisation and associated Possessions being addressed under Clauses 16.72 or 16.73, in so far as the cost of NR Immunisation exceeds £3.375 million but does not exceed £4.125 million, **tie** shall pay Infraco 50% of the proportion of that cost in excess of £3.375 million in addition to all sums due to Infraco pursuant to paragraph 3.2;
- 3.7 subject to any liability in relation to NR Immunisation and associated Possessions (as defined in Clause 16) being addressed under Clauses 16.72 or 16.73, **tie** shall pay Infraco 100% of the cost of NR Immunisation in so far as the cost of such works exceeds £4.125 million.
4. The Infraco Immunisation Strategy is based on the Infraco or its sub-contractors carrying out all the works and supplying all equipment for the NR Immunisation.
5. Network Rail Costs as defined for the purposes of the Asset Protection Agreement shall be excluded in the calculation of the cost of the NR Immunisation for paragraph 3. All such Network Rail Costs shall be borne by **tie**.
6. Delays to NR Immunisation attributable to Network Rail shall be Compensation Events to the extent that such delays are not directly due to Infraco failure to comply with its obligations under this Agreement.
7. The Infraco's liability to **tie** in respect of or arising out of NR Immunisation shall be subject to the limitations as provided for in Clauses 16.72 and 16.73.
8. In the event that Network Rail do not accept the Infraco Immunisation Strategy by the deadline specified in paragraph 2 above, **tie** shall instruct the Infraco on how to proceed in respect of NR Immunisation and such instructions shall be Compensation Events and a **tie** Change (for any resulting additional or changed work required by **tie**) under the Infraco Contract.
9. In the event of paragraph 8 applying, the **tie** Change shall (subject to evaluation) omit an allowance of £2.2 million for NR Immunisation and add back any additional work to be undertaken to by the Infraco to support **tie** in delivering an alternative immunisation solution to mitigate the potential effects to the Railway of electromagnetic interference due to effects of coupled energy or stray current from the operation of the Edinburgh Tram Network traction system ("Alternative Solution").
10. In the event that the Infraco does not undertake the NR Immunisation or Alternative Solution works in full, all electromagnetic interference or corrosion due to effects of coupled energy or stray current from the operation of the Edinburgh Tram Network related obligations, in the Infraco Contract (including without prejudice to the foregoing Clause 16 and any relevant Third Party Agreements in Part 13 Section A of the Schedule) shall be the subject of a **tie** Change.
11. For the avoidance of doubt, **tie** shall pay to the Infraco, to the extent not taken into account in the **tie** Change arising pursuant to paragraph 8, any costs and expenses incurred as a consequence of the delay between the deadline specified in paragraph 2 and the actual date (and not the deemed date) that **tie** issue a **tie** Change Order. Such costs and expenses shall

be evaluated pursuant to Clause 65 (*Compensation Events*) on the basis that such delay is itself a Compensation Event.

12. **tie** accepts that the Infraco may commence the work to deliver the NR Immunisation under the Mobilisation and Advance Works Agreement.
13. All sums due to Infraco pursuant to this Appendix J shall be paid in accordance with Clause 66 (*Payment of the Contract Price*) and not Clause 67 (*Payment in respect of Applications for Milestone Payments*).

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**APPENDIX J**  
**DESIGN DELIVERY PROGRAMME V 26**