

**DISPUTE RESOLUTION PROCEDURE**

**Baird Drive Retaining Wall**

**TIE LIMITED**

**POSITION PAPER PURSUANT TO PARAGRAPH 9.2  
OF SCHEDULE PART 9 (DISPUTE RESOLUTION PROCEDURE)**

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*

16 October 2009

## 1. INTRODUCTION

- 1.1 There is a dispute, difference and/or unresolved claim ("**Dispute**") between **tie** Limited (hereinafter referred to as "**tie**") and the Bilfinger Berger (UK) Limited / Siemens plc / Construcciones y Auxiliar de Ferrocarriles delivery consortium (hereinafter collectively referred to as "**Infraco**") in connection with or arising from the agreement between **tie** and the Infraco in connection with the works authorised by the *Edinburgh Tram (Line One) Act 2006* and the *Edinburgh Tram (Line Two) Act 2006* (hereinafter referred to as the "**Infraco Contract**").
- 1.2 **tie** requires the Dispute (as further particularised below) to be referred to the Internal Dispute Resolution Procedure in accordance with *paragraph 9 of Schedule Part 9 (Dispute Resolution Procedure)* of the Infraco Contract.

## 2. THE DISPUTE

- 2.1 The Dispute concerns:
- 2.1.1 whether the Infraco are entitled to any (1) extension of time or relief from liquidated and ascertained damages under the Infraco Contract; and/or (2) additional loss and expense incurred by the Infraco to the extent that completion of the Infraco Works are delayed beyond the Planned Sectional Completion Date(s) as a consequence of or in any way connected with the date of issue by Infraco of Infraco notification of **tie** Change number 105 dated 15 September 2008 issued under cover of letter dated 15 September 2008 (the "**Infraco Notification of tie Change**") (a copy of which is produced as **tie**'s Production Number 1) and/or the date of delivery to **tie** by Infraco of the Infraco's estimate dated 14 September 2009 in relation to Baird Drive retaining wall (the "**Estimate**") (a copy of which is produced as **tie**'s Production Number 13) in respect of Infraco Notification of **tie** Change and/or the absence of a **tie** Change Order in response to the Estimate; and
- 2.1.2 the contents of the Estimate.
- 2.2 By way of summary, the Estimate contains a number of items of work which are briefly described by Infraco. A quantity and rate is noted against each item of work. The rate is applied to the quantity to give a value of change of each item of work. The value of change in respect of each item of work is then collated, resulting in a total value of change of ONE MILLION NINE HUNDRED AND TWENTY THOUSAND FIVE HUNDRED AND SEVENTY EIGHT POUNDS AND EIGHTY ONE (£1,920,578.81) STERLING EXCLUDING VAT.
- 2.3 **tie** do not agree with the contents of the Estimate. In particular, **tie** do not agree that all the items and quantities of work and rates included by Infraco in the Estimate should be contained in the Estimate. **tie** are of the opinion that there are only certain items and quantities of work and rates which should be contained in the Estimate, which items of work, quantities and rates amount to SIXTY SEVEN THOUSAND TWO HUNDRED AND EIGHTY TWO POUNDS AND TWENTY EIGHT PENCE (£67,282.28) STERLING EXCLUDING VAT.
- 2.4 In this Position Paper, **tie** is seeking certain orders and declarations.
- 2.5 Accordingly, any additional declarations, orders or claims for damages or loss which are additional to the redress sought in this Position Paper and any referral to follow

hereon fall outwith the scope of the present Dispute, being reserved for future agreement or Adjudication, legal or other proceedings and **tie** does not seek any orders for payment or otherwise in the present Position Paper. **tie** reserves the right to do so.

- 2.6 There follows **tie's** position on the Dispute, together with its comments (where appropriate) on **tie's** understanding of the Infraco's position on the Dispute.

### 3. TIE'S POSITION ON THE DISPUTE

- 3.1 Applying the whole terms of the Infraco Contract it is **tie's** position that:

- 3.1.1 Infraco are not entitled to any (1) extension of time or relief from liquidated and ascertained damages under the Infraco Contract; or (2) additional loss and expense incurred by the Infraco to the extent that completion of the Infraco Works are delayed beyond the Planned Sectional Completion Date(s) as a consequence of or in any way connected with the date of issue by Infraco of Infraco Notification of **tie** Change and/or the date of delivery to **tie** by Infraco of the Estimate in respect of Infraco Notification of **tie** Change and/or the absence of a **tie** Change Order in response to the Estimate;
- 3.1.2 the only items of work which could be said to flow from the Infraco Notification of **tie** Change and which could be said to constitute a Notified Departure are those which relate to a change from a permanent erosion protection blanket mat to the slopes of the retaining wall footing to a brick retaining wall structure (the "**Retaining Wall**");
- 3.1.3 the only items of work which could be said to flow from the Infraco Notification of **tie** Change which could be said to give rise to a deemed **tie** Notice of Change are those which relate to the Retaining Wall;
- 3.1.4 the only items of work which could be said to flow from the Infraco Notification of **tie** Change and are further particularised in the Estimate, which are to be the subject of a **tie** Change Order are those which relate to the Retaining Wall;
- 3.1.5 the only items of work which constitute a Notified Departure and should be contained in the Estimate are those which relate to the Retaining Wall;
- 3.1.6 those items of work which are said by Infraco to flow from the Infraco Notification of **tie** Change and Estimate but are not related to the Retaining Wall arise from the Infraco's obligation to complete the design of the Edinburgh Tram Network including, but not limited to, the achievement of full compliance with the Employer's Requirements for the deliverables to enable the Edinburgh Tram Network to be procured, constructed and commissioned;
- 3.1.7 those items of work which flow from the Infraco Notification of **tie** Change and Estimate but are not related to the Retaining Wall come about through the evolution of the design through normal development and completion of the design;
- 3.1.8 the Estimate delivered by Infraco is deficient, lacking in detail and does not comply with the whole requirements of the Infraco Contract;

3.1.9 the Infraco have failed to demonstrate and/or substantiate that those items of work which they say flow from the Infraco Notification of **tie** Change and Estimate but are not related to the Retaining Wall constitute a Notified Departure; and

3.1.10 notwithstanding the deficiencies noted at *paragraphs 3.1.7 and 3.1.8* above, **tie** does have sufficient information to know that the only items of work which could be said to flow from the Infraco Notification of **tie** Change and further particularised in the Estimate which constitute a Notified Departure are those which relate to the Retaining Wall

(each of which matters are considered in more detail below)

3.2 Furthermore, it is **tie's** position that in order for it to be said that a Notified Departure has occurred under the Infraco Contract, it is for the Infraco to:

3.2.1 demonstrate and prove that the evolution and completion of the design to Issued For Construction stage exceeds normal development and completion of the design;

3.2.2 demonstrate and prove that a Notified Departure has occurred; and

3.2.3 provide a sufficient, adequate and competent estimate

(each of which matters are considered in more detail below)

3.3 It is **tie's** position that the foregoing is the logical sequence of steps which occur in the event of a Notified Departure. However, it is the case that the Infraco have failed to fully comply with each of these steps.

3.4 By way of explanation of the facts and circumstances which have led to the Dispute, a summary of the chronology of events concerning the Dispute, comprising extracts from relevant documents and correspondence, is included at Annex 1 to this Position Paper.

Administration of Alleged Change

3.5 By way of summary, *Clause 80.2.2* of the Infraco Contract requires the Infraco to issue an estimate within 18 Business Days of the receipt of a **tie** Notice of Change. The following table summarises the position that the Infraco did not deliver to **tie** the Estimate until ◆ Business Days, in other words more than one year, after the completion and issue of the Issued For Construction drawings. It also being the case that the Estimate was incomplete and as at the date of this Position Paper **tie's** requests for further and better particulars and questions in connection with Infraco Notification of **tie** Change and Estimate remain unanswered by Infraco.

	V31 Programme	Actual
IFC Issue	◆	16 June 2008
Construction Start	◆	◆
Infraco Notice of Change Issued		15 September 2008
Estimate submitted by Infraco		14 September 2009
Total Period from IFC issue to delivery of Estimate		◆ Business Days
Total Period from IFC issue to Notice		◆ Business Days
Total Period from Notice to Estimate		◆ Business Days



3.6 Paragraph 3.5 of Schedule Part 4 (Pricing) to the Infraco Contract then provides

*"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 Notice of 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 issues 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."* (emphasis added)

3.7 In terms of the foregoing, the Infraco Contract provides that the Infraco may give notice to tie where the facts or circumstances differ in any way from the Base Case Assumptions (as that term is defined in the Infraco Contract). In the event that a Notified Departure has occurred, the parties are then directed towards Clause 80 (tie Changes) of the Infraco Contract, which regulates and administers the process for the production and delivery of an estimate and (where appropriate) the issue of a tie Change Order. In this regard, Clause(s) 80.2, 80.3 and 80.4 of the Infraco Contract provide, amongst other things

*"80.2.2 subject to Clause 80.3, require the Infraco to provide tie within 18 Business Days of receipt of the tie Notice of Change with an Estimate, and specify whether any competitive quotes are required*

*80.3 If, on receipt of the tie Notice of Change, the Infraco considers (acting reasonably) that the Estimate required is too complex to be completed and returned to tie within 18 Business Days, then the Infraco shall, within 5 Business Days (during the period prior to issue of the Reliability Certificate) and within 10 Business Days (at any time after issue of the Reliability Certificate) of receipt of such tie Notice of Change, deliver to tie a request for a reasonable extended period of time for return of the Estimate, such extended period to be agreed by the Parties, both acting reasonably.*

*80.4 As soon as reasonably practicable, and in any event within 18 Business Days after having received a tie Notice of Change (or such longer period as may have been agreed by the Parties, pursuant to Clause 80.3 or as required by Clause 80.11), the Infraco shall deliver to tie the Estimate."* (emphasis added)

3.8 The Infraco gave notice to tie of its opinion that a Notified Departure had occurred by way of letter dated 15 September 2008. As part of its notice, the Infraco also requested a reasonable extension of time to provide an Estimate, but did not specify

what that reasonable extension of time was to be. Thereafter, the Infraco (**tie's** Production Number 3) confirmed to **tie** that the Estimate would be delivered by the Infraco to **tie** within 25 Business Days of 30 October 2008. **tie** therefore reasonably understood that the Estimate would be delivered to it by the Infraco on or by **◆** November 2008. However, it was the case that the Estimate was not actually delivered by the Infraco to **tie** until 14 September 2009 - a delay of **◆** calendar weeks from when **tie** was advised by Infraco that it would receive the Estimate. Even then, the Infraco has not, by the date of this Position Paper, responded to the legitimate questions and requests for further information raised by **tie** in regard to the information which had been submitted to it by the Infraco.

- 3.9 Whilst the Infraco (**tie's** Production Number 7) attempted to offer an explanation as to the time it required to prepare the Estimate, in terms of which it was suggested by Infraco that it required on average 110 Business Days to prepare an estimate, it is **tie's** position that:
- 3.9.1 the Infraco Contract was the subject of detailed negotiation between **tie** and the Infraco and the Infraco agreed that an estimate would be provided within 18 Business Days (save for the circumstances where the estimate was too complex);
- 3.9.2 it is entirely unreasonable for the Infraco to now suggest that it requires on average six times longer to deliver an estimate than that envisaged in the Infraco Contract (for reasons which relate to its internal workings and operation and appears to take no account of activities which could be carried out in parallel), particularly where the Infraco has responsibility for the carrying out and completion of the design of the Infraco Works (the appointment of the SDS Provider having been novated to the Infraco) and is responsible and liable for the management and supervision of the SDS Provider (*Clause(s) 11.3 and 11.4* of the Infraco Contract);
- 3.9.3 in the event it could be said that the Estimate was too complex (which is denied by **tie**), Infraco has in the circumstances made little or no attempt to act reasonably and agree with **tie** a reasonable extended period of time for delivery of the Estimate - instead, Infraco have adopted a unilateral position and delivered the Estimate beyond what would be considered a reasonable time for its production and delivery;
- 3.9.4 the addition of the Masonry Panel is not a complex issue with regards to programming; not an issue which affects the co-ordination of the consortium partnership with regards to the systems installation; not a issue which requires substantial time to complete a quantity take off and not an issue which requires substantial time to review any temporary works required; and
- 3.9.5 as of the date of this Position Paper the Estimate is incomplete and does not comply with the whole requirements of the Infraco Contract (which point is discussed in more detail below).
- 3.10 In light of the foregoing it is **tie's** position that any delay in the carrying out and completion of the Infraco Works which may be said by the Infraco to be due to alleged failures on the part of **tie** in timeously administering the *Clause 80* change mechanism in regard to the Estimate (including, but not limited to, any alleged delay in issuing a **tie** Change Order in response to the Estimate) is attributable to failure on

the part of Infraco, for which Infraco are not entitled to any relief or compensation under the Infraco Contract.

Sufficiency and/or Adequacy of Estimate

3.11 In regard to the content of an estimate, the Infraco Contract requires that the Estimate shall include, *inter alia*:

- the Infraco's opinion as to whether relief from compliance with any of its obligations under the Infraco Contract is required during or as a result of the implementation of the proposed **tie** Change;
- the Infraco's opinion as to any impact on the performance of the Infraco Works and the performance of the Edinburgh Tram Network;
- the Infraco's opinion as to any impact on the Programme and any requirement for an extension of time;
- the Infraco's opinion as to any Consents, Land Consents and/or Traffic Regulation Orders (and/or any amendment or revision required to existing Consents, Land Consents and/or Traffic Regulation Orders) which are required in order to implement or as a result of the implementation of the proposed **tie** Change and any update of the Consents Programme which will be required as a result;
- the Infraco's opinion as to any new agreements with third parties which may be required to implement the **tie** Change;
- the Infraco's opinion as to any amendment required to Infraco Contract or the Key Subcontracts as a result of the implementation of the proposed **tie** Change;
- the Infraco's opinion as to the proposed method of delivery of the proposed **tie** Change;
- the Infraco's opinion as to proposals to mitigate the impact of the proposed **tie** Change;
- the Infraco's opinion as to confirmation of the changes to the terms of the Infraco Contract and/or the SDS Contract proposed by **tie** and any further changes the terms of the Infraco Contract and/or the SDS Contract necessary to give effect to the proposed **tie** Change;
- the Infraco's opinion as to any increase or decrease in any sums due to be paid to the Infraco under the Infraco Contract (including the value of any Milestone Payments and the scheduling of such Milestone Payments) in order to implement, and as a direct consequence of implementation of, the **tie** Change, such increase or, decrease to be calculated in accordance with *Clause 80*;
- evidence demonstrating that the Infraco has used all reasonable endeavours to minimise (including by the use of competitive quotes where appropriate in the case of construction works) any increase in costs and to maximise any reduction of costs;

- evidence demonstrating that the Infraco has, where required by **tie** and where appropriate and practicable, sought competitive quotes from persons other than the Infraco Parties in pursuance of its obligation under *Clause 80.7.1*;
  - evidence demonstrating that the Infraco has investigated how to mitigate the impact of the **tie** Change; and
  - evidence demonstrating that the proposed **tie** Change will, where relevant, be implemented in the most cost effective manner (taking into account the reasonable requirements of Infraco in relation to quality) including showing where reasonably practicable that when any expenditure is incurred, relevant Changes in Law that are reasonably foreseeable at the time of consideration of the specific **tie** Change and which relate to that **tie** Change have been taken into account by the Infraco; and
  - if the Infraco does not intend to use its own resources Infraco is to demonstrate that it is appropriate to subcontract the implementation of such **tie** Change.
- 3.12 **tie** make the following observations in regard to the Estimate, which observations support **tie's** position that the Estimate is incomplete and does not comply with the whole requirements of the Infraco Contract:
- 3.12.1 the Estimate is incomplete as the Infraco say that it makes no allowance for any delay or disruption to the Programme that may occur due to the change estimated;
- 3.12.2 the Estimate is incomplete as the Infraco say that it makes no allowance for ducts, containment or track formation;
- 3.12.3 the Estimate is incomplete as the Infraco say that it makes no allowance for OLE bases;
- 3.12.4 the Estimate is incomplete as the Infraco say that it includes provisional sums (bankseat coping and associated falseworks) - which item is only capable of being valued by Infraco;
- 3.12.5 the Infraco do not offer evidence demonstrating that the proposed **tie** Change will, where relevant, be implemented in the most cost effective manner;
- 3.12.6 the Infraco do not offer evidence demonstrating that the Infraco has investigated how to mitigate the impact of the **tie** Change

the whole of which matters prevents and precludes the issue by **tie** of a **tie** Change Order in response to the Estimate.

#### Contents of the Estimate

- 3.13 The items of work contained in the Estimate delivered by the Infraco are included by the Infraco on the basis of the Infraco's opinion that the Issued For Construction drawings for the structure known as "*W8 Baird Drive*" differed to a greater extent and complexity than design development and therefore a Notified Departure had occurred. This is denied by **tie** on the basis that the design simply evolved in the normal process through the stages of preliminary to construction stage, which is explained in more detail below.



- 3.14 **tie** refer to the Base Date Design Information drawings. There Base Date Design Information drawings are general arrangement drawings depicting in general terms the design of the structure. The general arrangement drawings could be said to be the preliminary stage design drawings. The general arrangement drawings therefore have to be developed and evolved into detailed construction drawings.
- 3.15 The evolution of the Base Date Design Information drawings resulted in Issued For Construction drawings. With the exception of the Retaining Wall, which **tie** acknowledges constitutes a Notified Departure (for the reasons set out below), applying the test set out at *Pricing Assumption 3.4.1*:
- 3.15.1 in terms of the design principle between the Base Date Design Information and the Issued For Construction drawings for the construction of Baird Drive retaining wall there is no change;
- 3.15.2 in terms of the shape and/or form of Baird Drive structure between Base Date Design Information and Issued For Construction drawings there is no change; and
- 3.15.3 in terms of outline specification of Baird Drive structure between Base Date Design Information and Issued For Construction drawings there is no change.
- 3.16 Accordingly, the changes alleged by the Infraco to have occurred are simply the evolution of the design by normal development and completion of the design through the stages of preliminary to construction stages and therefore do not constitute a Notified Departure.
- 3.17 It is acknowledged by **tie** that the Retaining Wall is a change in form and therefore constitutes a Notified Departure.
- 3.18 It follows therefore that in order for it to be legitimate and valid to include a particular item of work, quantity or rate in the Estimate (on the basis that a Notified Departure has occurred), that particular item of work, quantity and rate must be required because "*the facts or circumstances differ in any way from the [Base Date Design Information, the Base Tram Information, the Pricing Assumptions and the Specified Exclusions] save to the extent caused by a breach of contract by the Infraco, an Infraco Change or a Change in Law*" (paragraph 2.8 of Schedule Part 4 (*Pricing*)).
- 3.19 However, the foregoing is an objective test in terms of which the facts and circumstances encapsulated in the Base Case Assumptions are compared with the facts and circumstances which are subsequently found to exist - the contents of the Estimate (subject to various exceptions considered below) only comprise the difference(s) revealed by that comparison.
- 3.20 It is the case that the occurrence of a Notified Departure is not self evident and an assertion (with nothing more) by Infraco that a Notified Departure has occurred is not sufficient to allow **tie** to be able to assess whether there has been a Notified Departure and, if so, the consequences of that Notified Departure.
- 3.21 In light of the foregoing it is for the Infraco to justify its opinion that there has been a Notified Departure. The evidence necessary to justify Infraco's entitlement as minimum required substantiation would be directed towards

- 3.21.1 putting **tie** in possession of all the information which would have been necessary for **tie** to come to the view that the **tie** Change Order is required, necessary and valid, which would include such matters as:
- 3.21.1.1 the specific Base Date Design Information relevant to the **tie** Notice of Change under *Clause 80*;
- 3.21.1.2 who made the design change and what was the technical reason for the change;
- 3.21.1.3 how the design change process adopted by the Infraco satisfied *Clause 10* and in particular *Clause 10.2* of the *Infraco Contract*: "*The Infraco shall submit any Deliverables associated with any Permitted Variations to tie's representative for review pursuant to Schedule Part 14 (Review Procedure and Design Management Plan)*";
- 3.21.1.4 the factual and technical grounds justifying why the evolved changes exceed normal development and completion of the design from Base Date Design Information to Issued For Construction stage;
- 3.21.1.5 how Infraco has complied with its duty to mitigate the effect of the Notified Departure and the **tie** Change (if there has been one); and
- 3.21.1.6 that there has been no Infraco Breach or SDS Provider breach, Infraco Change or Change in Law, which has caused or contributed to the occurrence of a Notified Departure.
- 3.22 In the circumstances under consideration here the explanations offered by the Infraco to support its assertion that the alleged changes constitute a Notified Departure are:
- 3.22.1 In the Infraco Notification of **tie** Change at note 2 "*the IFC drawings for W 8 Baird Drive (IFC Drws ULE90130-05-RTW-00200-00212) differ to a greater extent and complexity than design development and included a temporary retaining measure to be designed by the contractor which is subject to submission of a Form C to Network Rail*" (emphasis added)
- 3.22.1.1 **tie** comment that the Infraco Notification of **tie** Change did not specify why the design had changed or was different to greater extent and complexity than the Base Case Assumptions, or any connection between "*extent and complexity*" of the Issued For Construction drawings - which is simply their number and detail - with Pricing Assumption 1.
- 3.23 It is **tie's** position that the explanations offered by Infraco fall far short of what would reasonably be required to be produced to justify the inclusion by Infraco of all the items of work contained in the Estimate. The failures by Infraco in this regard thereby
- 3.23.1 means that a **tie** Notice of Change would not be deemed to have been issued until such information had been provided; and
- 3.23.2 the period during which Infraco fails to provide the necessary information falls to be regarded as being due to a breach by Infraco and not reckonable in calculating any period of delay between the notification of a Notified Departure and the actual date (not the deemed date) that **tie** issues a **tie**



Notice of Change (*paragraph 3.5 of Schedule Part 4 (Pricing)*) - in other words the Infraco is not entitled to claim additional loss and expense by alleging that the delay was such that it constituted a Compensation Event.

The Application of the Test of Normal Development and Completion of Designs

3.24 *Pricing Assumption 1 in Schedule Part 4 (Pricing) provides*

*"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" (emphasis added)*

- 3.25 It is **tie's** position, applying the foregoing, that the Infraco is therefore assumed to have taken into account, when pricing, all the amendments to the design as at 25 November 2007 which would result from the normal development and completion of the designs.
- 3.26 Any and every change from Base Date Design Information does not therefore constitute a Notified Departure and thereby justify inclusion in the Estimate. It is only those items of work which arise as a consequence of changes which are alterations in "*design principle, shape, form and/or specification*" which do not arise from the normal development and completion of design which could validly and legitimately be included in the Estimate.
- 3.27 It is **tie's** position that it is only the items of work which relate to the Retaining Wall which are to be contained in the Estimate as it is only those items of work which arise as a consequence of changes which **tie** acknowledges constitute a Notified Departure.
- 3.28 It is observed by **tie** that in terms of the Infraco Notification of **tie** Change and the Estimate, the Infraco has sought to ignore the foregoing important qualification, and instead has simply compared the Issued For Construction information to a re-measure of the relevant Base Date Design Information and claimed the difference. This does not evidence or support the occurrence of a Notified Departure.
- 3.29 **tie's** position in regard to the content of the Estimate is further set out and particularised in its letter to the Infraco dated **◆** October 2009 (**tie's** Production Number **◆**).

**4. REQUIRED OBJECTIVES OF REFERRAL OF THE DISPUTE TO THE INTERNAL RESOLUTION PROCEDURE**

4.1 **tie** requires the Infraco to:

- 4.1.1 agree that they are not entitled to any (1) extension of time or relief from liquidated and ascertained damages under the Infraco Contract; or (2) additional loss and expense incurred by the Infraco to the extent that completion of the Infraco Works are delayed beyond the Planned Sectional Completion Date(s) as a consequence of or in any way connected with the date of issue by Infraco of Infraco Notification of **tie** Change and/or the date of delivery to **tie** by Infraco of the Estimate in respect of Infraco Notification of **tie** Change and/or the absence of a **tie** Change Order in response to the Estimate; and
- 4.1.2 agree that the only items of work to be contained in the Estimate are those items of work which relate to the Retaining Wall.

**5. REQUIRED REDRESS**

5.1 A declaration that:

- 5.1.1 the Infraco are not entitled to any (1) extension of time or relief from liquidated and ascertained damages under the Infraco Contract; or (2) additional loss and expense incurred by the Infraco to the extent that completion of the Infraco Works are delayed beyond the Planned Sectional Completion Date(s) as a consequence of or in any way connected with the date of issue by Infraco of Infraco Notification of **tie** Change and/or the date of delivery to **tie** by Infraco of the Estimate in respect of Infraco Notification of **tie** Change and/or the absence of a **tie** Change Order in response to the Estimate;
- 5.1.2 the only facts or circumstances notified in the Infraco Notification of **tie** Change which constitute a Notified Departure are those which relate to the Retaining Wall;
- 5.1.3 the Estimate is to contain only those items of work which relate to the Retaining Wall; and
- 5.1.4 the Estimate is to be in the amount of SIXTY SEVEN THOUSAND TWO HUNDRED AND EIGHTY TWO POUNDS AND TWENTY EIGHT PENCE (£67,282.28) STERLING EXCLUDING VAT.

**6. TIE'S FURTHER COMMENTS ON AND UNDERSTANDING OF INFRACO'S POSITION ON THE DISPUTE**

- 6.1 Copies of the Base Date Design Information drawings (**tie's** Production Numbers 15 to 16 inclusive) and the Issued For Construction drawings (**tie's** Production Numbers 17 to 29 inclusive) are appended to this Position Paper.
- 6.2 Without prejudice to and under reservation of **tie's** position set out above in this Position Paper, **tie's** further comments on the Estimate are as follows:
  - 6.2.1 Infraco states that the retaining wall is repositioned from the BDDI to IFC as a consequence of the tram track moving 2.7m from Network Rail property.



- Infraco provide no reasons for the change. Applying the tests of *Pricing Assumption 3.4.1* to this matter there is no change to the design principle, the shape, the form or the outline specification which would entitle Infraco to claim for a Notified Departure.
- 6.2.2 Infraco states the BDDI drawing ULE90130-05-RTE-00201 does not dimension the removal of the stone wall. The BDDI drawing identifies that the stone wall is to be demolished. Applying the tests of *Pricing Assumption 3.4.1* to this matter there is no change to the design principle, the shape, the form or the outline specification which would entitle Infraco to claim for a Notified Departure.
- 6.2.3 Infraco states that the width of the embankment has changed from the BDDI to IFC drawing but fail to say why the change has occurred. Whilst there may be a change in the size of the embankment, applying the tests of *Pricing Assumption 3.4.1* to the said claim there is no change to the design principle, the shape, the form or the outline specification which would entitle Infraco to claim for a Notified Departure
- 6.2.4 Infraco states that the IFC drawings show a change in the earthwork embankments to the retaining walls (the wings) of the Water of Leith and Balgreen underbridge / underpass. **tie's** opinion is that at BDDI design stage the design for the said wings had not been completed. Therefore completing the design for the “wings” is the normal development and evolution of the design through the changes of preliminary to construction stage. Accordingly, there is no Notified Departure associated with the design of the wings.
- 6.2.5 Infraco states that there is additions to the fencing works and changes to the types of fencing. **tie's** opinion is that at BDDI design stage the design for the said fencing had not been completed. Therefore completing the design for the fencing is the normal development and evolution of the design through the changes of preliminary to construction stage. Accordingly, there is no Notified Departure associated with the design of the fencing.
- 6.2.6 Infraco states that there is additional “*Contractor design*” of temporary measures added between the BDDI and the IFC drawings. **tie's** opinion is that temporary works by its nature is a contractor designed item which would always have been necessary to complete the permanent works. Therefore applying the tests of *Pricing Assumption 3.4.1* to the said claim there is no change to the design principle, the shape, the form or the outline specification to the retaining wall which would entitle Infraco to claim for a Notified Departure for additional contractor designed temporary works.
- 6.2.7 Infraco in their valuation of the Estimate claim for a change in the quality / type of the “*Geogrid*” earth wall reinforcement. **tie's** opinion is that at BDDI design stage the design for the said earth wall reinforcement had not been completed. Therefore completing the design for the earth wall reinforcement is the normal development and evolution of the design through the changes of preliminary to construction stage. Applying the tests of *Pricing Assumption 3.4.1* to the said claim there is no change to the design principle, the shape, the form or the outline specification of the earth wall reinforcement. Accordingly there is no Notified Departure associated with the earth wall reinforcement.



- 6.2.8 Infraco in their valuation of the Estimate claim for additional ground drainage on the basis that there is no ground drainage depicted on the BDDI design drawings. **tie's** opinion is that at BDDI design stage the design for the said drainage had not been completed. Therefore completing the design for ground drainage is the normal development and evolution of the design through the changes of preliminary to construction stage. Applying the tests of *Pricing Assumption 3.4.1* to the said claim there is no change to the design principle, the shape, the form or the outline specification of the ground drainage. Accordingly there is no Notified Departure associated with the ground drainage.
- 6.2.9 Infraco in their valuation of the Estimate include provisional allowances for the Precast Concrete Bankseat on the basis that the said precast items were not depicted on the BDDI design drawings. **tie's** opinion is that at BDDI design stage the design for the said Precast Concrete Bankseat had not been completed. Therefore completing the design for the Precast Concrete Bankseat is the normal development and evolution of the design through the changes of preliminary to construction stage. Applying the tests of *Pricing Assumption 3.4.1* to the said claim there is no change to the design principle, the shape, the form or the outline specification of the Precast Concrete Bankseat. Accordingly, there is no Notified Departure associated with the Precast Concrete Bankseats.
- 6.3 This Position Paper is served under reservation of a right by **tie**, both in its sole discretion and in any event in response to new information coming to light, at any time to add, omit, alter or otherwise amend in whole or in part its position as set out in this Position Paper.

**ANNEX 1 TO THE POSITION PAPER**

**IN THE MATTER OF A DISPUTE**

**BETWEEN**

**tie LIMITED**

**and**

**BILFINGER BERGER UK LIMITED; SIEMENS PLC; and**

**CONSTRUCCIONES Y AUXILIAR DE FERROCARRILES S.A.**

By way of explanation as to the facts and circumstances which have given rise to the Dispute, there follows a summary of the chronology of events concerning the Dispute.

1. Infraco by way of letter to tie with enclosures dated 15 September 2008 (reference 25.1.201/IO/497) (a copy of which is produced as tie's Production Number 1) stated, amongst other things

*"Please find enclosed Infraco Notice of tie Change No 104, 105 and 106 regarding the IFC Drawing for W9 Balgreen Road Retaining Wall, W9 Baird Drive Retaining Wall W8 and Murrayfield Stadium Retaining Wall S21B respectively*

*The Infraco Notification noted above is due to the drawings changes being outwith the normal development and completion of design process and therefore promoting a consequential effect on the Infraco Contract Programme. Unfortunately we are unable to provide an accurate programme assessment and estimate due to the complexity of the changes.*

*In accordance with Clause 80.3 of the Infraco Contract we hereby request a reasonable extension of time to the contract requirement of 18 business days to provide an Estimate.* (emphasis added)

The abovementioned Infraco Notification of tie Change No. 105 dated 15 September 2008 provided, amongst other things

*"Details of tie Change upon which the Estimate is based (Clause 80.2.1)*

*Schedule Part 4, Pricing Assumption, paragraph 3.4.1.1, assumes that the Issued for Construction Drawings do not differ from the base date assumption drawings of 25 November 2007 other than design development as the IFC drawings for W 8 Baird Drive (IFC Drws ULE90130-05-RTW-00200-00212) differ to a greater extent and complexity than design development and included a temporary retaining measure to be designed by the contractor which is subject to submission of a Form C to Network Rail the foregoing results in a Notified Departure.* (emphasis added)

2. tie by way of letter to the Infraco dated 23 September 2008 (reference INF CORR 179) (a copy of which is produced as tie's Production Number 2) stated, amongst other things



*"You have requested an extension of time to provide an Estimate for them, however you have not advised the extended period you require.*

*In order for tie to consider a reasonable request for extension of time we require you to advise of your expected date for the delivery of Estimates.*

*Your notice refers to IFC drawings being different to 'the base date assumption drawings of 25 November 2007'. We assume you mean the drawings forming the Base Data Design Information as defined at 2.3 and Pricing Assumption 3.4.1.1*

*You have in other correspondence stated that you consider you price is based on other information and not the Base Data Design Information.*

*For these notices to be Notified Departures they must firstly relate to the Base Data Design Information.*

*Can you, as a matter of urgency, clarify your position in relation to the Base Data Information.*

*In addition you will be required to demonstrate in you Estimate the departure from the normal development and completion of designs."*

3. Infraco by way of letter to tie dated 23 October 2008 (reference 25.1.201/MRH/757) (a copy of which is produced as tie's Production Number 3) stated, amongst other things

*"We refer to your letter dated 30 September 2008, reference INF CORR 190, and confirm that we believe that Estimates can be provided within a further 25 Business Days of today's date." (emphasis added)*

4. tie by way of letter to the Infraco dated 30 October 2008 (reference INF CORR 312) (a copy of which is produced as tie's Production Number 4) stated, amongst other things

*"We refer to your letter dated 23rd October 2008 reference 25.1.201/MRH/757.*

*We note that you anticipate that Estimates relating to "Infraco Notice of tie Change Numbers 104 - 110" will be submitted within 25 Business days from the 23rd October 2008.*

*We would again reiterate that in accordance with Clause 80.2 of the contract BSC require to submit Estimates within 18 Business Days.*

*Any resultant delay associated with the late submittal of Estimates associated with these "Infraco Notice of tie Change" will be the responsibility of BSC." (emphasis added)*

5. Infraco by way of letter to tie dated 4 November 2008 (reference 25.1.201/MRH/833) (a copy of which is produced as tie's Production Number 5) stated, amongst other things

*"We refer to your letter dated 30 October 2008, reference INF CORR 312.*





Your statement that Estimates require to be submitted within 18 Business Days in accordance with Clause 80.2 of the Infraco Contract is acknowledged, however, under Clause 80.3 of the contract if the Infraco considers (acting reasonably) that the Estimate required is too complex to be completed and returned to tie within 18 Business Days it is entitled to request a reasonable extended period of time for return of the Estimate.

*In our letter dated 15 September 2008, reference 25.1.201/IO/497, we made this request and in our letter of 23 October 2008, reference 25.1.201/MRH/757, we confirmed our belief that the Estimates pertaining to these particular drawing changes could be provided within a further 25 Business Days.*

We therefore request that you explain the contractual basis of the statement contained in paragraph five of your letter in which you assert that delay resulting from "late" (emphasis added) submittal of Estimates will be the responsibility of BSC." (emphasis added)

6. **tie** by way of letter to the Infraco dated 4 December 2008 (reference INF CORR 434) (a copy of which is produced as **tie's** Production Number 6) stated, amongst other things

"This period of time is not acceptable to **tie** and is outwith the agreed intention and timescales identified within the contract.

Any resultant delay associated with the late issue of a Change in this instance will be held to be the responsibility of BSC.

In addition we require BSC to clearly identify what works they consider constitutes a change." (emphasis added)

7. Infraco by way of letter to **tie** dated 11 December 2008 (reference 25.1.201/MRH/1134) (a copy of which is produced as **tie's** Production Number 7) stated, amongst other things

*"We refer to your letter dated 04 December 2008, reference INF CORR 434, in which you conclude that the period taken to provide Estimates for changes on IFC drawings is unacceptable and respond as follows:*

The date of issue of any batch of drawings at IFC status does not immediately trigger the start of production of an Estimate;

- *The design has to progress through our internal approval system involving Bilfinger Berger and Siemens design teams.*
- *We need to establish that each drawing does actually reflect the final design intent (we have multiple examples of drawings issued at IFC status and then re-issued with further changes)*
- *The Change team needs to establish that the drawings received represent a complete package to facilitate a quantity check*
- *We have to date received around 1000 IFC drawings covering the scope works and a further 200 IFC drawings for section 3*



*necessitating a review of the order in which Estimates are to be provided to align with the proposed construction sequence.*

*We estimate that this process takes, over average, around five weeks (25 Business Days).*

*Assuming that the drawings we have received do reflect the final design intent, the drawings are packaged and sent to Corduroy for a quantity check against the Base Date Design take off. This process takes, on average, four weeks (20 Business Days).*

*The returned take off is then compared with the previous versions and validated by our change team. We estimate that, on average, we can complete this activity for an individual structure in three weeks (15 Business Days).*

*The quantities are then valued using Schedule 4 Rates where possible where this is not available fair rates are calculated and applied.*

*External sub-contractor estimates for non-schedule rates require enquiries to be issued and returns to be processed. This process can take between four and five weeks (20-25 Business Days).*

*The changes to drawings have to be reviewed in conjunction with IFC drawings received for adjoining structures to facilitate integration of works. In addition, IFC drawings for drainage, lighting and landscaping are required to allow a full comparison with the Base Date Design drawings.*

*These drawings are not necessarily issued at the same time as the structures IFCs causing delays in completion of the comparative quantification exercise (refer examples below). The effect on the timing of an Estimate submission cannot be quantified generally and varies from structure to structure.*

*When the scale of change has been established the engineering and construction departments have to be consulted to establish the buildability of the works and any revised temporary works arrangements required. The temporary works proposals require to be designed by an external design consultant. This process may take, on average, five weeks (25 Business Days) or longer, particularly in Sections 2, 5, 6 and 7 where the locality of the railway has a major influence on available construction methods.*

*Clauses 80.4.1 to 80.4.3 of the Infraco Contract require that, in submitting an Estimate, we must assess the impact of the tie Change upon:*

- Our ability to comply with our obligations*
- The performance of our works*
- The Programme*

*In this respect, our planners are only able to assess the impact of the changes at the conclusion of the processes described above, and the effects of the changes have to be measured against the contract Programme. The Programme at revision V26 remains the contract Programme but cannot be*

used to measure the impacts of IFC drawing changes as it no longer reflects the planned construction sequence. It is therefore necessary that we qualify our Estimates to the effect that we are unable to comply with the requirements of Clauses 80.4.1 to 80.4.3.

At the date of writing we do not have sufficient information to provide an Estimate as required by clause 80.4 of the Infraco Contract."

8. **tie** by way of letter to Infraco dated 16 March 2009 (reference INF CORR 867) (a copy of which is produced as **tie's** Production Number 8) stated, amongst other things

*"We refer to your letter reference 25.1.201/MRH/1134 dated 11th December 2008 and comment as follows.*

The timescale for your process required leading to the provision of an Estimate are wholly unacceptable to **tie** as a realistic timescale when viewed against the actual work content and the general contractual obligation for the provision of Estimates.

To suggest that you require in excess of 20 weeks to produce Estimates in the respect is not considerable reasonable in the circumstances.

The outstanding IFC drawings that you require to review were well known to you and therefore any review checks to establish any potential changes should have been understood in relation to the provision of Estimates under Clause 80.

***tie** would reiterate that the time taken to provide Estimates is unacceptable and unreasonable." (emphasis added)*

9. Infraco by way of letter to **tie** dated 2 April 2009 (reference 25.1.201/MRH/2160) (a copy of which is produced as **tie's** Production Number 9) stated, amongst other things

*"We note in your letter dated 16 March 2009 (reference INF CORR 857) that whilst you appear to reject our assessment of the time periods required for processing changes you have not explained your position beyond this statement - clearly considering your detailed involvement in the design approval process it would be helpful if you had given some indication as to the timescale which you consider to be both necessary and of course reasonable taking account of all the circumstances. Not to do this is unfortunately not helpful to either understanding your thoughts or of course reaching a common understanding as to how to go forward. Essentially following an appraisal of your letter we are no wiser than before."*

10. Infraco by way of letter to **tie** dated 7 May 2009 (reference 25.1.201/IO/2564) (a copy of which is produced as **tie's** Production Number 10) stated, amongst other things

*"We submit our estimate for INTC 104 drawing changes in the sum of £3,802,618.23 excluding VAT*

*No allowance has been made for any delay or disruption to the Programme that may occur due to the change as estimated.*



*The Sheet piling costs are based on similar trackside works already completed (invoices attached).*

*No allowance has been made for removal or trimming of piles.*

*No allowance has been made for design work in connection with the retaining structure to the Network Rail embankment.*

*No allowance for ducts, duct containment or track formation.*

*No allowance for OLE bases.*

*Provisional Sums have been included for bankseat coping and associated falseworks, fence to Network Rail Property and De-watering of site.."*

The aforementioned preliminary estimate was in the amount of £3,802,618.23.

11. **tie** by way of letter to Infracore dated 2 June 2009 (reference INF CORR 1539/MP) (a copy of which is produced as **tie's** Production Number 11) stated, amongst other things

*"This Estimate follows on from INTC 105 issued on 15th September 2008. Your Estimate contains amounts for several items in relation to Baird Drive Retaining Wall and this includes:-*

- 1. Sheet Piling*
- 2. Temporary Sheet Piling.*
- 3. Piling Platform.*
- 4. Ground Anchors.*
- 5. Geogrid.*
- 6. Toe Wall.*
- 7. Excavation, Disposal, Fill. Compaction*
- 8. Safety Critical Staff.*
- 9. Steel Pedestrian Parapet.*
- 10. 1800 Fence between track and Network Rail.*

*There is no explanation provided as to why certain items are required at all (e.g. sheet piling to remove unsuitable material) or why other items fall outwith the normal development and completion of the design giving due consideration to the Contract Workslope.*

*An explanation as to the reasons why you consider the various items are a Change is required prior to any assessment of quantum due to you and we suggest that for this purpose it is necessary for us to meet and discuss all of the above items."*



12. **tie** by way of letter with enclosures to Infraco dated 13 August 2009 (reference INF CORR 2031/DC) (a copy of which is produced as **tie's** Production Number 12) stated, amongst other things

*"We refer to your estimate for the above works contained in letter dated 7th May 2009 reference IO/2564 and respond as follows.*

*We note that following discussion between our Colin Neil and your Jim Donaldson relating to the IFC design drawings and your initial estimate, BSC are to submit a revised estimate. Please find attached, minutes from the meeting held with you on 23rd July 2009 for clarity.*

*To assist our forthcoming review of your impending revised estimate can you please submit the mx data string files for the cross sections of the proposed retaining wall."*

13. Infraco by way of letter to **tie** dated 14 September 2009 (reference 25.1.201/IO/3496) (a copy of which is produced as **tie's** Production Number 13) stated, amongst other things

*"We submit our revised estimate for INTC 104 IFC drawing changes in the sum of £1,920,578.81 excluding VAT*

*No allowance has been made for any delay or disruption to the Programme that may occur due to the change as estimated.*

*No allowance has been made for design work in connection with the retaining structure to the Network Rail embankment.*

*No allowance for ducts, duct containment or track formation.*

*No allowance for OLE bases.*

*Provisional Sums have been included for bankseat coping and associated falseworks."*

The aforementioned preliminary estimate was in the amount of £1,920,578.81.

14. ◆



**APPENDIX TO THE POSITION PAPER  
INVENTORY OF PRODUCTIONS FOR TIE  
REFERRED TO IN THE POSITION PAPER**

**IN THE MATTER OF A DISPUTE**

**BETWEEN**

**tie LIMITED**

**and**

**BILFINGER BERGER UK LIMITED; SIEMENS PLC; and**

**CONSTRUCCIONES Y AUXILIAR DE FERROCARRILES S.A.**

1. Copy of letter with enclosures from Bilfinger Berger-Siemens-CAF Consortium to tie Limited dated 15 September 2008 (reference 25.1.201/IO/497);
2. Copy of letter from tie Limited to Bilfinger Berger-Siemens-CAF Consortium dated 23 September 2008 (reference INF CORR 179);
3. Copy of letter with enclosures from Bilfinger Berger-Siemens-CAF Consortium to tie Limited dated 23 October 2008 (reference 25.1.201/IO/757);
4. Copy of letter from tie Limited to Bilfinger Berger-Siemens-CAF Consortium dated 30 October 2008 (reference INF CORR 312);
5. Copy of letter from Bilfinger Berger-Siemens-CAF Consortium to tie Limited dated 4 November 2008 (reference 25.1.201/MRH/833);
6. Copy of letter from tie Limited to Bilfinger Berger-Siemens-CAF Consortium dated 4 December 2008 (reference INF CORR 434);
7. Copy of letter from Bilfinger Berger-Siemens-CAF Consortium to tie Limited dated 11 December 2008 (reference 25.1.201/MRH/1134);
8. Copy of letter from tie Limited to Bilfinger Berger-Siemens-CAF Consortium dated 16 March 2009 (reference INF CORR 867);
9. Copy of letter from Bilfinger Berger-Siemens-CAF Consortium to tie Limited dated 2 April 2009 (reference 25.1.201/IO/2160);
10. Copy of letter with enclosures from Bilfinger Berger-Siemens-CAF Consortium to tie Limited dated 7 May 2009 (reference 25.1.201/IO/2564);
11. Copy of letter from tie Limited to Bilfinger Berger-Siemens-CAF Consortium dated 2 June 2009 (reference INF CORR 1539/MP);
12. Copy of letter from tie Limited to Bilfinger Berger-Siemens-CAF Consortium dated 13 August 2009 (reference INF CORR 2031/DC);



13. Copy of letter with enclosures from Bilfinger Berger-Siemens-CAF Consortium to tie Limited dated 14 September 2009 (reference 25.1.201/IO/3496);
14. ◆
15. Copy of Parsons Brinckerhoff drawing number ULE90130-05-RTW-00201 dated 31 May 2006 - (Base Date Design Information);
16. Copy of Parsons Brinckerhoff drawing number ULE90130-05-RTW-00202 dated 31 May 2006 - (Base Date Design Information);
17. Copy of Parsons Brinckerhoff drawing number ULE90131-05-RTW-00200 revision 5 dated 1 August 2008- (Issued For Construction);
18. Copy of Parsons Brinckerhoff drawing number ULE90131-05-RTW-00201 revision 7 dated 1 August 2008- (Issued For Construction);
19. Copy of Parsons Brinckerhoff drawing number ULE90131-05-RTW-00202 revision 6 dated 1 August 2008- (Issued For Construction);
20. Copy of Parsons Brinckerhoff drawing number ULE90131-05-RTW-00203 revision 6 dated 1 August 2008- (Issued For Construction);
21. Copy of Parsons Brinckerhoff drawing number ULE90131-05-RTW-00204 revision 5 dated 1 August 2008- (Issued For Construction);
22. Copy of Parsons Brinckerhoff drawing number ULE90131-05-RTW-00205 revision 4 dated 1 August 2008- (Issued For Construction);
23. Copy of Parsons Brinckerhoff drawing number ULE90131-05-RTW-00206 revision 4 dated 1 August 2008- (Issued For Construction);
24. Copy of Parsons Brinckerhoff drawing number ULE90131-05-RTW-00207 revision 4 dated 1 August 2008- (Issued For Construction);
25. Copy of Parsons Brinckerhoff drawing number ULE90131-05-RTW-00208 revision 3 dated 1 August 2008- (Issued For Construction);
26. Copy of Parsons Brinckerhoff drawing number ULE90131-05-RTW-00209 revision 3 dated 1 August 2008- (Issued For Construction);
27. Copy of Parsons Brinckerhoff drawing number ULE90131-05-RTW-00210 revision 3 dated 1 August 2008- (Issued For Construction);
28. Copy of Parsons Brinckerhoff drawing number ULE90131-05-RTW-00211 revision 3 dated 1 August 2008- (Issued For Construction);
29. Copy of Parsons Brinckerhoff drawing number ULE90131-05-RTW-00212 revision 3 dated 1 August 2008- (Issued For Construction).