

A8 Underpass (S28) – Variation in pile toe levels

Infraco Notice of tie Change Nr 323

1. Introduction

- 1.1. This dispute concerns the value of the piling associated with alleged additional driving of piles at the A8 Underpass (S28)
- 1.2. The Infraco seeks to be reimbursed for all the alleged additional works identified between the IFC drawings and the as-built construction whereas tie considers that the Infraco are only entitled to be paid for those items demonstrated as being a Notified Departure or a Specified Exclusion from the Construction Works Price.
- 1.3. The Infraco values the alleged additional works at £38,331.10
- 1.4. Tie's position is that the changes to piling is the development of the design from preliminary to construction as when applying the tests of Pricing Assumption 3.4.1 there is no change to the design principle, shape form and or outline specification.
- 1.5. Tie values INTC at £nil
- 1.6. There is a dispute of £38,331.10

2. Dispute

- 2.1. Whether changes identified between the IFC drawings and the as-built construction form part of a Notified Departure and therefore fall to be valued.

3. Background

- 3.1. By a letter dated the 23 February 2009 Infraco gave notice that the toe piles levels for the piles referenced M1 & M2 changed from the IFC drawing levels of 24.8m AOD and 24.4m OAD respectively to an as-built depth of 23.25AOD.
- 3.2. On the 23 March 2009 Infraco issued INTC No 323 dated the 23 March 2009. The reason given by Infraco in the Estimate for the change is stated as being:

“A8 Underpass – change to length of piles due to variation in toe level from that detailed on IFC drawings and base date design.”
- 3.3. The Estimate was not completed in full with regards to programme issues. However the Estimate at item 3 states:

“... that Details of the tie Change upon which the Estimate is based (clause 80.2.1 – ref CVI S28-001 dated 26/01/09.”

3.4. CVI S28-001 dated 26/01/09, was included by tie as part of the vouching of the Estimate. CVI S28-001 is in the following terms:

“ Phase 1, Pile Toe Levels

Construct Type M1 and M2 piles to a toe level of 22.250m AOD as piles are to be toed into underlying bedrock by minimum 1m as stated in note 6 on drawing number ULE90130-05-BRG-00550. IFC drawings give pile toe levels as 24.8m AOD for M1 and M2 piles and rock head level has been found to be at 23.250m AOD. Reinforcement cages are to be modified to extend to bottom of the as constructed piles.”

3.5. Note 6 on IFC drawing number ULE90130-05-BRG-00550 states:

“Pile cut off level shall be 75mm above the underside of pile cap level. Pile concrete shall be cast to a minimum of 300mm above the pile cut-off level and subsequently cut down to that level. The estimated pile toe level shown in the schedule of piles assumes that piles are toed 1000mm into the underlying bedrock. A suitably qualified geotechnical engineer / engineering geologist from the design organisation shall be present on site during the installation to the prescribed level, the geotechnical engineer / engineering geologist shall advise of any variation in pile toe level that shall be applicable to all other piles.

4. Infraco's Position

4.1. Infraco's position, is set out in their letter 21 May 2009, being that whilst there is a change between the BDDI drawing and the IFC drawings, which will form part of a separate INTC, the change from IFC to as-built forms part of Pricing Assumption 3.4.1 of Schedule Part 4. Infraco states:

“We further note that you acknowledge the rockhead level of 25.83m AOD shown on BH37/BGS. This is recorded in Drawing Number ULE90310-05-BR000521 Rev.3 (BDDI). We would however ask you to note the length of piles noted on same drawing as typically 15m long. This is the information upon which our Base Date Design assumption with respect to length of pile required.

IFC drawing ref ULE90310.05BRG00550 Rev.2 identifies pile toe levels, which results in pile lengths significantly greater than 15 metres in length. Presently the Change we identify is one between BDDI and 'as constructed' for Phase I piling.

In support of our position, we would refer you to Schedule 4 Clause 3.4 Pricing

Assumptions viz;

3.4 Pricing Assumptions are:

- 1. The Design prepared by the SDS Provider will not*

1.1 *in terms of design principle, shape, form and/or specification be amended from the drawings forming the Base Date Design information ...”*

5. Tie's Position

5.1. Clause 3.5 of Schedule Part 4 states:

“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...”

5.2. The Base Case Assumptions include the Pricing Assumptions. Pricing Assumption 3.4.1 states:

“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.”

5.3. The definitions of Issued for Construction Drawings is:

“**Issued for Construction Drawings**” means those Deliverables necessary for the Infraco to commence construction of the relevant part of the Infraco Works and as shown on the Design Delivery Programme which have been fully approved by all Approval Bodies and in accordance with the Review Procedure”.

5.4. Tie admits that the toe level changed between IFC and as-built. The piles are bored piles i.e. piles designed to be founded within the rock strata. The change in depth was expected. Bored piles, unlike the likes of friction piles at Russell Road Retaining Wall, bored piles have to be drilled to a solid foundation. The IFC drawing ULE90130-05-BRG-00550 Rev 2 at note 6 anticipates such a change to the pile depth. Note 6 states:

*“The **estimated pile toe level shown** in the schedule of piles **assumes that** piles are toed 1000mm into the underlying bedrock.*

5.5. Anticipating the change to the pile depth, SDD set out how the changes would be dealt with. Note 6 of the IFC drawings ULE90130-05-BRG-00550 Rev 2 identifies the need for a *qualified geotechnical engineer / engineering geologist* to be on standby during the drilling. Note 6 states:

“...A suitably qualified geotechnical engineer / engineering geologist from the design organisation shall be present on site during the installation to the prescribed level, the geotechnical engineer / engineering geologist shall

advise of any variation in pile toe level that shall be applicable to all other piles.”

5.6. The BDDI drawings and the IFC drawings identify that the piles to the A8 underpass were bored piles and therefore there are no facts or circumstances which differ from BDDI to IFC or IFC to as-built.

5.7. Applying the tests of Pricing Assumption 3.4.1.1 to the IFC design drawings to the as-built / as-constructed situation to the type of piles designed:

5.7.1. There is no change to the design principle.

5.7.2. There is no change to the shape and /or form

5.7.3. There is no change to the outlined specification.

5.8. Accordingly there is no Notified Departure and therefore Infracore are not entitled to any change to the Construction Works Price resulting for the increased depth of the piles.

6. What tie seek from this DRP

6.1. That Infracore cannot simply measure the difference from IFC design to as built and seek payment

JN 14/10/09