

## TIE

Current issues (as at 18 March 2009), arising from a high level document review and a few interviews with the project team which are mainly related to ongoing utility delays, design delays and uncertainty created by differing interpretations of how to deal with events under the contract:

- 1 Design responsibility - definition of change to the design, as contract includes design development (BDDI to IFC), clause 3.4 in Part 4
- 2 The extent that a Notified Departure gives rise to additional time and money (ref clause 65)
- 3 Impact on progress if failure to agree the consequences (price & programme) of a tie change
- 4 Responsibility for ground conditions risk (clause 3.3 (c))
- 5 Obligations to mitigate delay - BSC do not believe they have to start works until all design issues are resolved (as per their planning assumptions)
- 6 Application of the preliminaries % to change orders
- 7 Other minor issues:-
  - a) Utility issues still unresolved (eg Burnside Road)
  - b) Responsibility for Temporary works changes (eg Russell Road retaining wall, South Gyle access bridge)
  - c) Impact of traffic management restrictions on programme sequence
  - d) Storage costs for CAF trams (delivered in accordance with the original programme)
  - e) Whether Hilton hotel car park works is a change or not
  - f) Edinburgh Park INTC 091 estimate
  - g) Evaluation of costs on V26-31 (specifically prelims as EOT involved)
  - h) Scottish power connections
  - i) Design issues (eg SDS management, achievement of VE savings, CEC approval process)

Current status of utility diversions is around 11-12 months late (see table below).

Current status of SDS design (IFC drawings) needs to be established.

Delay to completion forecast to be 9 -16 months (dependent on the extent of mitigation that the Contractor can achieve and impact of ongoing design/utility issues).

### Potential solutions (for discussion)

- 8 Four key elements of a resolution (of the current impasse) are:
  - Reduce uncertainty in the contract interpretation
  - Evaluate Tie liability (cost and time)
  - Clear commercial issues to date (draw line in the sand)
  - Agree new programme to complete
  - Establish communication protocol for resolution of remaining design issues
- 9 Strategically, it is important to reduce uncertainty in contract interpretation for :
  - (a) Responsibility for the cost consequences of design development
  - (b) Programme assumptions re incomplete design stopping work from proceeding
  - (c) Liability for consequences of subsurface conditionsReduce uncertainty by using the DRP to achieve clarification
- 10 Independently, obtain Queen Counsel's opinion on design responsibility (Schedule Part 4) and obligation to mitigate delay. Based on this, assess liability for the 310 INTC's received to end February 2009.
  - a) If positive, continue to take specific cases through DRP
  - b) If negative, obtain a re-pricing of the now known scope of work using the Schedule part 4 schedule of rates (to obtain forecast outturn cost).

- c) Get updated programme assessment of completion based on current knowledge of delivery dates for outstanding Utilities & Telecoms, based on Counsel's advice re mitigation.
- 11 Assess all liabilities for EOT (under the Infraco contract) and be in a position to make an award (independent of quality of details received from BSC) – Form own opinion of delay to date and reasonable programme to complete
- 12 Use Framework management group to unlock issues regarding: access, sequence of works, processing of design issues and issue of an updated design programme (JSDS).
  - a) Agree protocol for dealing with disputed change orders
  - b) Obtain clarity over design responsibility (if not enforced through DRP)
- 13 Reinforce obligation to carry out a Change Order (cl.80) without agreement on price, (ie not subject to clause 80.12.3.3 as this gives Contractor right to refuse unless it gets an EOT).
- 14 Establish the circumstances where a change to the BDDI results in a Notified Departure (clause 3.5 of Schedule Part 4) which entitles the Contractor to time and money (and communicate protocol to the design team).
- 15 Use Audit clause to ascertain status of Consortium's design and actual time dependent prelims costs (consortium and supply chain) - (clause 104). If not obtained through an Audit, then check status of Siemens design (any change to footings/road interface caused by Siemens will hurt B&B more) to gauge impact on current SDS deliverables
- 16 Obtain support from an independent QS firm (if necessary) to price the change orders / delay & disruption to the programme to ensure tie has an opinion (and not rely on Contractor's submissions).
- 17 Having established a value for the 20 tie change orders (and any others eg no. 44 ocean terminal), authorise commitment to pay (or payment on account), issue any EOT related to these 20 changes as a whole (attempt to draw a line in the sand).
- 18 Consider in any programme re-negotiation and settlement the sub-division of sectional Completion Dates (and associated LADs) – including potentially sectional operation into elements to reduce the Contractor's risk to LADs and if necessary consider a holiday period, (ie relief from LADs rather than a non compensable EOT)
- 19 Obtain support to Project Director by increasing resources in Project Controls/Commercial team (specifically the Infraco contract) to provide analysis to support commercial position.
- 20 Test quality of tie record keeping (in relation to a specific event/area) to gauge ability to argue responsibility for delay (to date) and ability to quantify disruption.

<b>Utilities status</b>				period 12 (feb 09)		
ref	milestone	baseline programme A	current forecast B	cal days late C=B-A	months late	
1	MUDFA & Utilities work area 1 completion	31-Oct-08	18-Dec-09	413	13.3	
2	MUDFA & Utilities work area 2 completion	01-Aug-08	29-May-09	301	9.7	
3	MUDFA & Utilities work area 1C completion	31-Oct-08	02-Oct-09	336	10.8	
4	MUDFA & Utilities work area 1D completion	19-Dec-08	18-Dec-09	364	11.7	
5	MUDFA & Utilities work area 5 completion	05-Nov-07	complete			
6	MUDFA & Utilities work area 5B completion	11-Apr-08	10-Apr-09	364	11.7	
7	MUDFA & Utilities work area 5C completion	16-May-08	10-Jul-09	420	13.5	
8	Depot SGN diversion	18-Apr-08	complete			
9	Depot watermain diversion	30-May-08	complete			
10	MUDFA & Utilities work area 9 completion	16-May-08	15/05/2009	364	11.7	

**Notes** Av: delay 11.8  
 baseline programme data from Schedule part 15  
 current forecast data from Tom Hickson (19/3/09)

**Time schedule report (current forecast of completion)**

				period 12 (feb 09)		
ref	milestone	baseline programme A	current forecast B	cal days late C=B-A	months late	
1	MUDFA works complete	Nov-08	Aug-09	273	8.8	
2	All issue of construction drawings delivered	21-Jan-09	07-Aug-09	198	6.4	
3	TRO process complete	01-Dec-09	01-Sep-10	274	8.8	
4	Commission section 2	11-Jan-10	08-Sep-10	240	7.7	
5	Commission section 6	25-Mar-10	02-Oct-10	191	6.2	
6	Commission section 7	25-Jun-10	31-Mar-11	279	9.0	
7	Commission section 5	09-Nov-10	19-Sep-11	314	10.1	
8	Shadow running starts	18-Apr-11	Feb-12	289	9.3	
9	Open for service	Jul-11	Jun-12	336	10.8	

**Schedule Part 4**

**Clause 3.3**

Specified Exclusions from the Construction Works Price are:

- a) Utilities diversions (including both the diversion of Utilities and the diversion of any other utilities) and protective works associated with utilities save for the Defined Provisional Sums for those utilities diversions that are to be undertaken by Infraco;
- b) Work in connection with the St Andrew Square public realm.....
- 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 Construction Works Price does not include for dealing with replacement of any materials below the earthworks outline of below ground obstructions/voids, soft material or any contaminated materials;
- d) Bernard Street public realm.....

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.

**Clause 3.4**

Pricing Assumptions are:

1. The Design prepared by the SDS Provider will not (other than amendments arising from the normal development and completion of designs):

- 1.1 in terms of design principle, shape, form and/or specification be amended from the drawings forming the Base Date Design Information (except in respect of Value Engineering identified in Appendices C or D to this Schedule Part 4);
- 1.2 be amended from the scope shown on the Base Date Design Information and Infraco Proposals as a consequence of any Third Party Agreement (except in connection with changes in respect of Provisional Sums identified in Appendix B); and
- 1.3 be amended from the drawings forming the Base Date Design Information and Infraco Proposals as a consequence of the requirements of any Approval Body.

For the avoidance of doubt normal design 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.

.....

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 Envelope" (as defined in paragraph 3.6 below). The Infraco shall not encounter any below ground obstructions or voids, soft material and or contamination however the price for excavation and earthworks is inclusive of any differences between differing sub-soils that may prevail within the earthworks boundary

.....

### Clause 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** 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 was a Compensation Event.

### Schedule Part 15

#### Programme

"The Infraco Construction Programme dated 29/4/08 is based on V26 of the SDS design programme. Since this programme was produced, SDS has provided an update to the design programme.

It was agreed that any variation between the SDS design delivery programme and the Infraco Construction Programme would be dealt with as a Notified departure to the extent that such variation adversely affects the achievement of the Infraco Construction programme."