

Infraco Entitlement

The following is a Report of **tie** assessment of financial entitlement for Infraco in two parts:

1. To complete the Infraco works for Airport to Haymarket (Project Phoenix - PP)
2. To complete works to a suitable point and demobilise (Project Separation - PS)

This assessment calculates entitlement using information contained in the following documents:

- a) Analysis of Construction Works Price (CWP) (document 1)
- b) CWP to total value to include for Change both agreed and to be agreed (document 2).
- c) Analysis of Milestone Payments Projection to end March 2011 and comparison of cumulative certified value to actual achieved value. (document 3).
- d) Analysis of Works Done / To Do (document 4)
- e) Priced BOQ from Airport to Haymarket (document 5 CS BOQ (tie)) (summary page only)
- f) Priced BOQ from Airport to Haymarket (document 5A CS BOQ (tie)) (summary page only)
- g) Preliminaries Summary and EOT 3 calculations (document 6)

The calculations and comparisons of options are set out in the following Reports :

- 1 Calculation of assessment of Infraco Entitlement – Project Phoenix (Report no PP1A and PP1B in two parts)
- 2 Comparison of Infraco Entitlement and the Bill of Quantities totals (Report no PP2)
- 3 Comparison of like for like figures with document 'POTENTIAL FOR A DRAFT OFFER' (Report no PP3)
- 4 Analysis of Deckchair figures with Infraco Entitlement figures (Report PP4)
- 5 Calculation of assessment of Infraco Entitlement in Project Separation(Report PS1)

1. Infraco Entitlement to complete works from Airport to Haymarket (Project Phoenix)

Methodology

A separate calculation is shown for each Infraco Member.

Civils

Infraco Entitlement is assessed by tie and established by building up the Infraco Contract Price from CWP plus changes and other contractual entitlements to estimated final price, adhering to the mechanisms in the Infraco Contract.

This assessment commences with the CWP(55177) , then adds Changes properly notified, agreed and payable under the Contract, then Changes properly notified but not yet agreed, then Changes still be ascertained/notified to arrive at an estimated final value of works properly due under the terms of the Infraco Contract. This is separately calculated for each Infraco Member.

To this is added an assessment of the value of prolongation of Preliminaries built up from agreed EOT and an assessment of EOT yet agreed, priced using the schedules in the Infraco Contract.

Systems

For systems the Contract Price is established from the Contract Price Analysis and Changes under the Infraco Contract are added. The Contract Price Analysis figure includes Off street Construction (38390) plus System Wide (4919) plus Design (8124).An apportionment of on street is added as follows.

Siemens System Wide Works are works not specific to the geographic section from Airport to Haymarket but works may be completed such as to hand over to tie (if appropriate for use in the remaining works)to install. A 75% apportionment is made for work done.

Siemens System Wide Design. tie has no visibility of the status of design to complete by Siemens and if a Project Phoenix conclusion is reached then this design will require to be reviewed warranted and assessed for its fitness for purpose for tie to adopt in the remaining works. A 75% apportionment is made in respect of the Siemens design work carried out system wide - onstreet.

An assessment of the value of prolongation of Preliminaries is added using estimated Actual Cost and agreements in EOT 1 as a basis.

SDS

SDS value is taken from the Contract Price Summary in Schedule Part 4. Changes are added including the estimated additional spend on the Provisional Sums for Extended Construction and Design support.

CAF

CAF value is taken from the Contract Price Summary in Schedule Part 4. Changes and estimated prolongation are added based upon agreements on EOT for Mudfa.

Calculation Notes

A summary of the calculated value of the Infraco Entitlement is set out in the Spreadsheet in Report PP1A and B.

There are two Spreadsheets in the Report **PP1A and PP1B:**

PP1A - Calculated Assessment of Infraco Entitlement using the tie estimated change values [Airport to Haymarket (AIR-HAY)].

The Change Register in relation to Section 2A-7 (AIR-HAY) has been priced by tie to incorporate:

- a) Actual Change values where agreement has been reached with Infraco and a Change Order issued (coloured green).
- b) Estimated Change valued for alleged Changes by Infraco (INTCs) or for TNCs where no agreement has been reached on values (some in principle) (Ref document no 2).
- c) Contamination added as £4m less £1m included in Change value

The values for (a), (b) and (c) above have been added to the Construction Works Price (CWP). Provisional Sums and VE items are added / deducted as appropriate. These figures are sub-totalled and spread amongst BB/Siemens/CAF/SDS/Maintenance.

In addition for completeness of the assessment of Infraco Entitlement in a Project Phoenix scope the amounts for work carried out in Sections 1A/1B/1C/1D and PSSA are added.

This completes the construction works assessment. Preliminaries entitlements are assessed and are calculated and added as follows.

Prelims assessment

Value of construction work carried out estimated and projected to end March 2011. There are two parts of Preliminaries calculated – Fixed elements and Time Related elements.

Fixed elements

Fixed elements are taken from document 1 – BB Portions are Section A (4768+2521=7289) and Section B (3215+1545=4760). It is calculated that 2/3 of the Fixed elements are for mobilisation and set up costs with 1/3 being for demobilisation. In respect of Section B only a portion of the works was mobilised and an appropriate calculation is based upon only 1/3 for mobilisation and set up costs. Siemens are similarly calculated using 2/3 for mobilisation and setup.

Fixed Element		£
BB Section A		7289
BB Section B	1/3 x 4760	1587

		<u>8876</u>
Siemens	2/3 x 5610	<u>3740</u>
Fixed elements total		<u>12616</u>

Time Related Elements

Time elements are taken from document 1 – BB Portions are **Section A Total 25857** (16915+8942) and **Section B Total 14849** (10028+4821).

BB Section A

Section A Prelims = **25857** 25857

BB Section B

Section B is 13% complete

Section B Prelims = **14849*13%** 1930

Siemens Sections A/B

Section A Prelims 11781 11781

Section B Prelims 5049*15% 757

Time Related 40325

Add/EOT Entitlement

EOT 1 (Agreed) 3524

EOT 2 (22 weeks determined Siemens & CAF agreed) 1167

EOT 3 (Not agreed) 15553

Sub Total EOT Entitlement **20244**

tie assessment of EOT 3

Allow 38 weeks time related elements for appropriate items in Schedule Part 4

Consortium Prelims 38 weeks assessment (see spreadsheet)	15,553
Spreadsheet splits Prelims of 15553 into BB, Siemens and CAF.	
Totals of Preliminaries Assessment	
Fixed Elements	12,616
Time Elements - Progress of Works	40325
Time Elements – Extension of time assessments	20,244
Total Preliminaries Assessment of Infraco Entitlement	<u>73,185</u>

PP1B - Calculated Assessment of Infraco Entitlement using the tie estimated change values [Airport to Haymarket (AIR-HAY)].

Figures all as PP1A except that the Changes to Agree figure represents the Infraco position based upon Estimate values submitted. This is shown for comparison purposes only, given that the submitted Estimate values will not represent finally agreed values by historical reference. In addition the amounts for Contamination are included as £8m less £1.8m included in the Changes value. Prelims EOT is viewed as greater than tie assessment using durations from INTC 536 and calculated as:

		£
EOT 1	(Agreed)	3,524
EOT 2	(22 weeks determined Siemens & CAF agreed)	1,167
	(add 560k for BB submission – not accepted by tie)	560
EOT 3	(Not agreed – see spreadsheet calculation)	30,159
Sub Total	EOT Entitlement	<u>35,410</u>

Infraco may view their entitlement as greater than this when they submit all of their notified delays.

Further Entitlements

In addition to changes under the contract there are other items to consider when assessing the entitlement due to Infraco in a Project Phoenix calculation. For example it is expected that Siemens will have incurred cost in the delivery or part delivery of certain items not included in the measured

value of Off Street works or elsewhere. These items are only to be considered if the deliverables associated are satisfactory to tie, warranted and appropriate for tie to use in the remaining works.

In addition Infraco will pursue disruption and other claims some or all of which may have to be given credence.

A tie assessment of Further Infraco Entitlement is set out in Report PP4.

Total of Further Infraco Entitlements	<u>18967</u>
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Summary

tie's assessment of Infraco Entitlement is summarised in attached Spreadsheet in Report PP1A and PP1B to this Report.

In addition a check exercise has been carried out to verify the Infraco Entitlement for the civil engineering works.

This is in the form of a cross check of entitlement with BOQ'S prepared by Cyril Sweett for works from Airport to Haymarket (Project Phoenix Scope)

Cyril Sweett have been commissioned to produce a Bill of Quantities for the civil engineering works from Airport to Haymarket. The Bills were compiled from current IFC Drawings where available. The Bills have then been priced by a team of tie Quantity Surveyors using Schedule Part 4 Rates and Prices or rates deduced therefrom. This exercise is intended to be a reference point and check basis for the scope of works that will be constructed compared with a CWP plus changes approach that reflects Infraco Entitlement in the contractual arrangement.

Summary of Bill Totals

A spreadsheet comparison of Infraco Entitlement against the priced Bill of Quantities is attached in Report no PP2.

In essence the priced BOQ totals for civils construction works are marginally less than entitlement using tie's valuation of Change and the contract mechanisms.

This cross check exercise identifies that the Infraco Entitlement coming from the original Contract Price plus changes to entitlement value is consistent with a full remeasured value of works taken from IFC scope.

Document1

Analysis of Construction Works Price												
Element	Total Price		Construction Price		Fixed Preliminaries		Time Related Preliminaries		Fixed Escalation		Time Related Escalation	
			On Street	Off Street	On street	Off Street	On street	Off Street	On street	Off Street	On street	Off Street
Civils Works	134,880,335											
Construction Price		82,125,313	26,947,869	55,177,444								
Prelims		34,926,112			3,214,643	4,768,474	10,027,764	16,915,231				
Escalation		17,828,910							1,545,403	2,520,785	4,820,732	8,941,990
Systems Price	96,917,007											
Construction Price		55,543,938	17,453,561	38,090,377								
System Wide		7,027,266	2,108,180	4,919,086								
Design		11,605,508	3,481,652	8,123,856								
Prelims		22,440,295			1,683,021	3,927,052	5,049,067	11,781,155				
Value Engineering	-12,635,006	-12,635,006	-1,314,400	-11,320,606								
Provisional Sums	19,445,328	19,445,328	16,034,266	3,411,062								
Construction Works Price	238,607,664	238,607,664	64,711,128	98,701,219	4,897,664	8,695,526	15,076,831	28,696,386	1,545,403	2,520,785	4,820,732	8,941,990

Clarifications

- Figures are derived from Spreadsheet A Appendix F Schedule Prt 4
- Figures derived from Pre Contract information provided by BB and discussed in OSSA Credit meetings
- Figures derived from Construction Price Analysis provided by Siemens pre contract and verified during EOT 1 assessment
- Split is estimated pro rata to Construction Price
- Split is estimated pro rata to Construction Price and BB split on prelims
- Figures from Schedule Part 4

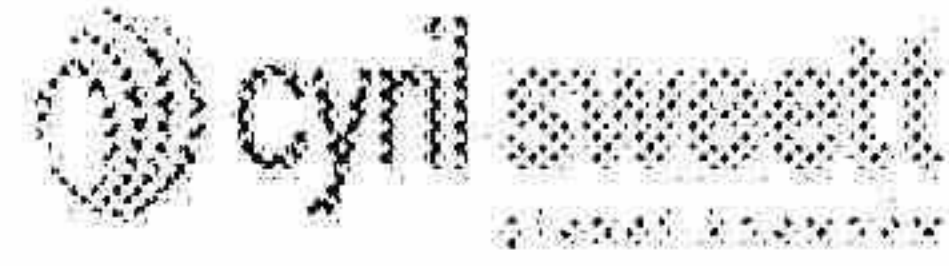
Original BoQ to CWP Comparison

Document no 2

		Construction Works (k)	Preliminaries / Escalation (k)	Construction Works Price (k)
Contract Price	Civils Works - Off Street	55,177	33,145	88,322
Original BoQ	Civils Works - Off Street	58,572	28,092	86,664
		-3,395	5,053	1,658

		Construction Works (k)	Preliminaries / Escalation (k)	Construction Works Price (k)
Contract Price	Civils Works - On Street	26,948	19,609	46,557
Original BoQ	Civils Works - On Street	28,138	16,400	44,538
		-1,190	3,209	2,019

Item Code	DESCRIPTION	TOTAL £	TOTAL £	Tender Adjustments	Revised Total CWP	Change Orders Agreed	INTC's to be Agreed	TOTAL
	Document no 2							
	Preliminaries & General Items	£9,443,867.11	£9,443,867.11	£1,065,000.00	£10,508,867.11			£10,508,867.11
	Method Related Charges	£18,648,640.12	£18,648,640.12	£3,988,973.53	£22,637,613.65			£22,637,613.65
B1	Track and Formation	£8,307,853.82	£8,307,853.82	£2,244,908.02	£10,552,761.84	£4,585,137.69	£6,294,443.04	£21,432,342.57
B2	Tramstops	£1,614,582.01	£1,614,582.01	£0.00	£1,614,582.01	£0.00	£706,860.00	£2,321,442.01
B3	Depots	£12,559,372.80	£12,559,372.80	-£3,066,093.00	£9,493,279.80	£2,242,363.82	£924,190.18	£12,659,833.80
B4	Highways	£3,248,955.81	£3,248,955.81	£0.00	£3,248,955.81	£10,842.00	£1,144,143.98	£4,403,941.79
B5	Buildings	£528,132.99	£528,132.99	£562,500.00	£1,090,632.99	£14,392.00	£157,202.00	£1,262,226.99
B6	Structures	£31,528,773.54	£31,528,773.54	-£2,389,077.74	£29,139,695.80	£5,272,550.06	£3,710,465.00	£38,122,710.86
C3	TRAMSTOP EQUIPMENT	£84,273.30	£84,273.30	£0.00	£84,273.30	£0.00	£0.00	£84,273.30
D2	OHLE	£701,881.46	£701,881.46	£0.00	£701,881.46	£0.00	£0.00	£701,881.46
	General			-£748,619.00	-£748,619.00	£112,215.60	£855,445.00	£219,041.60
GRAND TOTAL		£86,666,333	£86,666,333	£1,657,592	£88,323,925	£12,237,501	£13,792,749	£114,354,175
Excluding Preliminaries		£58,573,826	£58,573,826	-£3,396,382	£55,177,444	£12,237,501	£13,792,749	£81,207,694



AA

Summary

Amount

£

Sections Summary

Section 2A

Section 2A Civils	1,257,372.91
Section 2A Crew Relief	116,927.40
Section 2A Substation Base	74,246.91
Section 2A Drainage	358,061.68
Section 2A Ducting	318,136.71
S19 Haymarket Station Viaduct	1,036,717.12
S20 Russell Road Underbridge	1,073,080.99
W21 Haymarket Station Viaduct	25,139.99

SUB TOTAL 4,259,683.70

Section 5A

Section 5A Civils	1,909,819.74
Section 5A Drainage	394,570.48
Section 5A Balgreen Sub-station	53,832.02
Section 5A Tramstop	1,400,251.21
Section 5A Ducting	271,064.53
S21A Roseburn Street Viaduct	2,454,109.98
S22A Balgreen Tram Bridge	607,254.79
S22B Balgreen Road Access Bridge	143,355.41
S21B Murrayfield Stadium Retaining Walls	2,287,059.76
S21C Murrayfield Underpass	362,654.17
S21D Murrayfield Stadium Retaining Walls	1,108,987.35
S21E Water of Leith Bridge	836,622.74
W3 Russell Road Retaining Wall	1,388,829.25
W4 Russell Road Retaining Wall	3,314,391.72
W8 Baird Drive Retaining Wall	2,009,011.01
W18 Murrayfield Tram Stop Retaining Wall	111,554.12
W9 Balgreen Road Retaining Wall	744,240.01

SUB TOTAL 19,397,608.28

Section 5B

Section 5B Civils	3,874,334.20
Section 5B Bankhead Substation	47,626.19
Section 5B Drainage	2,523,585.20
Section 5B Tramstop	117,078.25
Section 5B Ducting	806,449.74
S23 Carrick Knowe Underbridge	1,126,179.29
S26 South Gyle Access Bridge	1,487,347.47
S27 Edinburgh Park Bridge	5,470,321.51
W11 Bankhead Retaining Wall	421,247.86

SUB TOTAL 15,874,169.70

Section 5C

Section 5C Civils	3,405,526.79
Section 5C Tramstops	115,689.98
Section 5C Drainage	985,515.95
Section 5C Ducting	434,546.17
S32 Deopt Access Bridge	1,998,141.59
S28 A8 Underpass	4,856,809.23
W19 Gyle Tramstop Retaining Wall	263,089.52

SUB TOTAL 12,059,319.23

Section 6

Depot Building	5,020,173.55
Depot Power Centre	187,968.83
Depot Sub Station	207,643.56
Depot Drainage	499,342.45
Depot Ducting	269,900.94
Section 6 Depot Externals	3,254,357.73
Section 6 Sundries	267,171.47
Section 6 Excavation & Earthworks	4,456,462.52

SUB TOTAL 14,163,021.05

23191

Page 1

TIE Planning



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Section 5A

Description

Amount

£

Section 7

Section 7A Civils	4,382,803.23
Section 7A Drainage	1,238,473.28
Section 7A Ducting	570,044.60
Section 7A Protected Species Mitigation	48,496.42
S29 Gogarburn Bridge	1,308,750.21
S30 Culvert 1	80,079.12
S31 Culvert 2	70,789.96
S34 Culvert 3	104,979.52
W14 Gogarburn Retaining Walls	1,034,221.27
W15 Gogarburn Retaining Walls	137,247.53

SUB TOTAL 8,975,885.14

COLLECTION

Section 2A	4,259,683.70
Section 5A	19,397,608.28
Section 5B	15,874,169.70
Section 5C	12,059,319.23
Section 6	14,163,021.05
Section 7	8,975,885.14

Utilities as per Status of Estimates 1,124,543.00

Allow against Change not included in IFC drawings 75,854,230.11

Adjustment for Earthworks 75,854,230.11

TOTAL 75,854,230.11

23191

Page 9

TIE Planning

AA



Summary	Amount £
Section 2	4,521,746
Section 5A	16,720,061
Section 5B	17,434,723
Section 5C	13,586,836
Section 6	12,121,410
Section 7A	7,268,958
Total	71,653,734

Section 2

Description	Cost/m2 £	Amount £
Section 2 Summary		
Structures		1,870,664.00
Civils		2,651,083.00
Total	0.00	4,521,747.00

Document no 6
Preliminaries Summary
Preliminaries calculations of EOT 3

Based on Value +eot

	Fixed Section A	Section B	Time RATE/WEEK Section A	Section B	tie WKS	TIE AMOUNT A	B	Infraco WKS	Infraco amount A	B
Consortium Prelims	2,591,677	211,812	47,206	25,198	38	1,793,828	957,524	66	3,115,596	1,663,068
Method Related Charges	4,697,583	4,548,234	150,774	99,920		0	0		0	0
BB High Level	1,468,821	801,175	24,283	14,905	38	922,754	169,917	60	1,456,980	894,300
Depot Sub Contractor	283,528		25,702		0	0	0	35	899,570	0
BB	1,347,092	636,770	43,176	13,611	38	1,640,688	0	60	2,590,560	816,660
SC 1 Section A	1,131,799		42,758		38	1,624,804	0	41	1,753,078	0
SC2 Section A	466,342		14,855		20	297,100	0	32	475,360	0
SC2 Section B		573,667		26,076	25	0	651,900	66	0	1,721,016
SC3 Section B		2,536,623		45,328	0	0	0	55	0	2,493,040
Totals						6,279,174	1,779,341		10,291,144	7,588,084

tie	BB	6279	Infraco	BB	10291
		1779			7588
1299/7.6*38	Siemens	6495	1299/7.6*66		11280
	CAF	1000			1000
EOT 3 Totals		15553			30159

Report PP1A

Calculation of Assessment of Infraco Entitlement (A - using tie estimate of change)

	BB	Siemens	Sub Total	CAF	SDS	Maintenance	Total
CWP Section A	55,177	51,433	106,610	55,782	4,984	5,071	172,447
Changes Agreed	12,238	593	12,831	328	496	0	13,655
Changes to Agree	13,793	0	13,793	1,215	4,520	0	19,528
Changes not notified	8,000	0	8,000	0	0	0	8,000
Contamination	3,000	0	3,000				3,000
Provisional Sums	2,461	950	3,411	0	0	0	3,411
VE	-9,104	0	-9,104	0	0	0	-9,104
Sub Total	85,565	52,976	138,541	57,325	10,000	5,071	210,937
Work Done 1A	3528	0	3,528	0	0	0	3,528
PSSA	12500	986	13,486	0	0	0	13,486
Totals	101,593	53,962	155,555	57,325	10,000	5,071	227,951

Prelims							
Fixed	8,876	3,740	12,616				12,616
Time	27,787	12,538	40,325				40,325
EOT	10,285	8,174	18,459	1,785			20,244
							0
Sub Total - Prelims	46,948	24,452	71,400	1,785	0	0	73,185

Further Entitlements							
Siemens System wide		1,581	1,581				1,581
Siemens Design		2,611	2,611				2,611
Siemens Materials		16,000	16,000				16,000
Sub Total	0	20,192	20,192	0	0	0	20,192

Grand Totals	148,541	98,606	247,147	59,110	10,000	5,071	321,328
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Report PP1B

Calculation of Assessment of Infraco Entitlement (B - using Infraco estimate of change)

	BB	Siemens	Sub Total	CAF	SDS	Maintenance	Total
CWP Section A	55,177	51,433	106,610	55,782	4,984	5,071	172,447
Changes Agreed	12,238	593	12,831	328	496	0	13,655
Changes to Agree	28,942	0	28,942	1,215	4,520	0	34,677
Changes not notified	8,000	0	8,000	0	0	0	8,000
Contamination	6,176	0	6,176	0	0	0	6,176
Provisional Sums	2,461	950	3,411	0	0	0	3,411
VE	-9,104	0	-9,104	0	0	0	-9,104
Sub Total	103,890	52,976	156,866	57,325	10,000	5,071	229,262
Work Done 1A	3528	0	3,528	0	0	0	3,528
PSSA	12500	851	13,351	0	0	0	13,351
Totals	119,918	53,827	173,745	57,325	10,000	5,071	246,141
Prelims							
Fixed	8,876	3,740	12,616				12,616
Time	27,787	12,538	40,325				40,325
EOT	20,665	12,960	33,625	1,785			35,410
			0				0
Sub Total - Prelims	57,328	29,238	86,566	1,785	0	0	88,351
Further Entitlements							
Siemens System wide		1,581	1,581				1,581
Siemens Design		2,611	2,611				2,611
Siemens Materials		16,000	16,000				16,000
Sub Total	0	20,192	20,192	0	0	0	20,192
Grand Totals	177,246	103,257	280,503	59,110	10,000	5,071	354,684

Report no PP2

Project Phoenix - Airport to Haymarket

Comparison of Infraco Entitlement with priced Bills of Quantities and Infraco Sub Contractors Costs

Section No	CWP Amount	Changes Notified	Total	BOQ Amounts	Difference	Sub Contract GMP's	As per Draft Proposal
						Sub Contractor	Amounts (Subs plus 10%)
2A	3,930	843	4,773	4,260	513	John Graham	27,379
5A	13,315	6,244	19,559	19,398	161	Expanded	32,464
5B	11,162	5,706	16,868	15,874	994	Others	31,888
5C	9,676	3,557	13,233	12,059	1,174		
6	12,932	3,167	16,099	14,163	1,936	Barr	19,215
7	4,910	6,514	11,424	8,976	2,448	Farrans	22,521
General	-748		-748		-748		
Utilities				1,124	-1,124		
BOQ Total				75,854			
Changes not in BOQ				3,017	-3,017		
Totals	55,177	26,031	81,208	78,871	2,337		133,467

Report PP3

Comparison of like for like figures with 'POTENTIAL FOR DRAFT OFFER'

Refer to Report PP1A for supporting figures.

Summary of Infraco Entitlement - using tie assessment				Summary of 'POTENTIAL FOR DRAFT OFFER'			
	Work Value	Prelims	Total Value		Work Value	Prelims	Total Value
BB	77,092	45,136	122,228		133,467	20,893	154,360
Siemens	57,168	16,278	73,446		39,729	32,763	72,492
Totals	134,260	61,414	195,674		173,196	53,656	226,852

Notes

1 Differences in work value (BB) are mainly in the extent of Sub contractor costs viewed against the entitlement and remeasure.

2 EOT - prolongation values are taken out of the tie calculation to compare with 'DRAFT OFFER'

Note on calculation and prelim allowances

tie assessment includes BB work value of 85,565 which includes 26,031 of change value plus 8,000 of changes not notified = 34,031

34,031 is deemed to include for Prelims at 7.4% Consortium and 17.5% Other = 24.9%. $34,031 * 24.9\% = 8,473$ Prelims amount.

Work is therefore $85,565 - 8,473 = 77,092$:prelims (excl EOT) = $8,876 + 27,787 + 8,473 = 45,136$.

Reconciliation

BB Total from PP1A = 148,541. Less Work not in Phoenix (1A 3,528 and PSSA 12,500) Less EOT (10,285) = 122,228.

Siemens Total from PP1A = 98,606. Less work not in Phoenix (986) less EOT (8,174) Less Siemens Materials (16,000) = 73,446.

Report PP1A

Calculation of Assessment of Infraco Entitlement (A - using tie estimate of change)

	BB	Siemens	Sub Total	CAF	SDS	Maintenance	Total
CWP Section A	55,177	55,625	110,802	55,782	4,984	5,071	176,639
Changes Agreed	12,238	593	12,831	328	496	0	13,655
Changes to Agree	13,793	0	13,793	1,215	4,520	0	19,528
Changes not notified	8,000	0	8,000	0	0	0	8,000
Contamination	3,000	0	3,000				3,000
Provisional Sums	2,461	950	3,411	0	0	0	3,411
VE	-9,104	0	-9,104	0	0	0	-9,104
Sub Total	85,565	57,168	142,733	57,325	10,000	5,071	215,129
Work Done 1A	3528	0	3,528	0	0	0	3,528
PSSA	12500	986	13,486	0	0	0	13,486
Totals	101,593	58,154	159,747	57,325	10,000	5,071	232,143
Prelims							
Fixed	8,876	3,740	12,616				12,616
Time	27,787	12,538	40,325				40,325
EOT	10,285	8,174	18,459	1,785			20,244
							0
Sub Total - Prelims	46,948	24,452	71,400	1,785	0	0	73,185
Further Entitlements							
Further Infraco Entitlements (refer Report PP4)	8,907	10,060	18,967				18,967
Sub Total	8,907	10,060	18,967	0	0	0	18,967
Grand Totals	157,448	92,666	250,114	59,110	10,000	5,071	324,295

Report PP1B

Calculation of Assessment of Infraco Entitlement (B - using Infraco estimate of change)

	BB	Siemens	Sub Total	CAF	SDS	Maintenance	Total
CWP Section A	55,177	55,625	110,802	55,782	4,984	5,071	176,639
Changes Agreed	12,238	593	12,831	328	496	0	13,655
Changes to Agree	28,942	0	28,942	1,215	4,520	0	34,677
Changes not notified	8,000	0	8,000	0	0	0	8,000
Contamination	6,176	0	6,176	0	0	0	6,176
Provisional Sums	2,461	950	3,411	0	0	0	3,411
VE	-9,104	0	-9,104	0	0	0	-9,104
Sub Total	103,890	57,168	161,058	57,325	10,000	5,071	233,454
Work Done 1A	3528	0	3,528	0	0	0	3,528
PSSA	12500	851	13,351	0	0	0	13,351
Totals	119,918	58,019	177,937	57,325	10,000	5,071	250,333
Prelims							
Fixed	8,876	3,740	12,616				12,616
Time	27,787	12,538	40,325				40,325
EOT	20,665	12,960	33,625	1,785			35,410
			0				0
Sub Total - Prelims	57,328	29,238	86,566	1,785	0	0	88,351
Further Entitlements							
Further Infraco Entitlements (refer Report PP4)	8,907	10,060	18,967				18,967
							0
							0
							0
							0
							0
							0
Sub Total	8,907	10,060	18,967	0	0	0	18,967
Grand Totals	186,153	97,317	283,470	59,110	10,000	5,071	357,651

Report no PP2

Project Phoenix - Airport to Haymarket

Comparison of Infraco Entitlement with priced Bills of Quantities and Infraco Sub Contractors Costs (Civil Engineering Works only)

Section No	A CWP Amount	B Changes Notified	C (A+B) Total tie assessed value	D Priced BOQ (Sch Pt 4)	E CS Priced BOQ	F Sub Contract GMP's Sub Contractor	G As per Draft Proposal Amounts (Subs plus 10%)
2A	3,930	843	4,773	4,260	4,522	John Graham	27,379
5A	13,315	6,244	19,559	19,398	16,710	Expanded	32,464
5B	11,162	5,706	16,868	15,874	17,435	Others	31,888
5C	9,676	3,557	13,233	12,059	13,587		
6	12,932	3,167	16,099	14,163	12,121	Barr	19,215
7	4,910	6,514	11,424	8,976	7,269	Farrans	22,521
General	-748		-748				
Utilities				1,124	1,124		
BOQ Total				75,854	74,778		
Changes not in BOQ				3,017	3,017		
Totals	55,177	26,031	81,208	78,871	75,795		
Add Changes not notified/contamination/ Prov Sums/VE			4,357	4,357	4,357		
Total Civil Engineering Works (excl Prelims)			85,565	83,228	80,152		133,467

Prelims Comparison		BB	Siemens	Total
C tie assessment	fixed	8,876	3,740	12,616
	time related	27,787	12,538	40,325
		36,663	16,278	52,941
Above includes escalation 34% =		12,465	5,535	18,000
amounts less escalation =		24,198	10,743	34,941
CS assessment	BB 81208*19.5%	15,835		15,835
	S 52976*19.5%		10,330	10,330
	Special Items	2198		2,198
		1510	3000	4,510
Totals	19,543	13,330	32,873	

Notes

Column C = tie assessed value + change
 Column D = Cyril Sweett BOQ priced by tie at Sch Part 4 rates
 Column E = Cyril Sweett BOQ priced by CS using market rates

 Changes not in BOQ = Misc change not picked up by measurer
 Changes not notified etc is taken from PP1A

Report PP3

Comparison of like for like figures with 'POTENTIAL FOR DRAFT OFFER'

Refer to Report PP1A for supporting figures.

Summary of Infraco Entitlement - using tie assessment				Summary of 'POTENTIAL FOR DRAFT OFFER'			
	Work Value	Prelims	Total Value		Work Value	Prelims	Total Value
BB	77,092	45,136	122,228		133,467	20,893	154,360
Siemens	57,168	16,278	73,446		39,729	32,763	72,492
Totals	134,260	61,414	195,674		173,196	53,656	226,852

Notes

1 Differences in work value (BB) are mainly in the extent of Sub contractor costs viewed against the entitlement and remeasure.

2 EOT - prolongation values are taken out of the tie calculation to compare with 'DRAFT OFFER'

Note on calculation and prelim allowances

tie assessment includes BB work value of 85,565 which includes 26,031 of change value plus 8,000 of changes not notified = 34,031

34,031 is deemed to include for Prelims at 7.4% Consortium and 17.5% Other = 24.9%. $34,031 * 24.9\% = 8,473$ Prelims amount.

Work is therefore $85,565 - 8,473 = 77,092$:prelims (excl EOT) = $8,876 + 27,787 + 8,473 = 45,136$.

Reconciliation

BB Total from PP1A = 148,541. Less Work not in Phoenix (1A 3,528 and PSSA 12,500) Less EOT (10,285) = 122,228.

Siemens Total from PP1A = 98,606. Less work not in Phoenix (986) less EOT (8,174) Less Siemens Materials (16,000) = 73,446.

Report PP4

Analysis of "Deckchair" figures and "Infraco Entitlement" papers Project Phoenix.

	Deck chair			Infraco Entitlement	
	Spend to date	"to go" total			
BB + S (b); (d); (f)	113.0	123.8		BB Off Street	85.6
	11.0	21.0		On Street	16.0
	<u>124.0</u>	<u>144.8</u>	268.8	Prelims	46.9
			Siemens Off Street	57.2	
			On street	1.0	
			Prelims	24.4	
				<u>231.1</u>	
SDS	9.0	1.0	10.0		10.0
CAF	47.0	15.0	62.5		59.1
Maintenance					5.1
	<u>180.0</u>	<u>160.8</u>	<u>341.3</u>		<u>305.3</u>

Difference = 341.3 – 305.3 = 36m

Major factor in this is the Cash vs. Earned Value = 33m

Differential = 33m due to Milestone Payments being different from measured work done and earned at March 2011. In an attempt to rationalise the Cash vs Value differential it is prudent to consider if there are any further entitlements. There are items which may give rise to further entitlements, claims and the like which have not been taken into the Infraco Entitlement or Deckchair figures above. These items are called Further Infraco Entitlement and are listed below. The amounts to be agreed with Infraco for further entitlement will determine the true differential between Cash and value at the snapshot of March 2011.

Further Infraco Entitlement

In addition to the CWP +Changes +allowances to Project Phoenix scope there will be further items that Infraco will seek reimbursement.

The following items are not necessary an acceptance of tie's liability but are items that may be pursued by Infraco as claims. The claim heads are assessed as:

1. Siemens Materials

Section A construction value	38390
+ System wide	4919
	<u>43309</u>
Total Siemens Value	55843

7027

62870

43309/62870 = 69% of construction value (Section A)

Siemens Materials are assessed as £11,000k for materials at Broxburn Yard (figure confirmed by Siemens) and an assessment of £5,000k for rail and sleepers in various locations around the site. These items will only be considered if the materials are suitable for Siemens to install under a Project Phoenix scope and for tie to adopt and incorporate into the remaining works.

Section A is included in entirety in the construction price.

Total Siemens Materials on/off site	16.000m	
Others Including BB	10.000	
Total Materials	26.000	
X 69% Section A value	17940 (included in Section A construction price)	
Materials not included	8060	<u>8060</u>

2. Disruption – sub contractors

Demobilisation / remobilisation of subcontractors

Subcontractor fixed costs 3228

Allow 50% for demob/remob 1614

Disruption claims

Say downtime / inefficiencies – allow 8 weeks Prelims Costs (time)

Barr	25702	
Expanded		
Grahams	42758	
Farrans	14855	
Others	43176	
	<u>126,491</u> x 8	1012
BAM	25000 x 8	200

Labour / Plant disruption

Total Construction Value	80000	
Less done	30000	
	50000	
L/P say 40%	20000	
20000 /169 wks x 8 weeks		947
		<u>3773</u>

3. BB/S disruption

BB Prelim Costs	47206	
	24282	
	<u>71488</u>	
	X 8	572
Siemens 22440/169 x 8		1062
		<u>1634</u>

4. Deterioration of works

Civils Works completed 30.000m		
Allow 5%		<u>1500</u>

5. Escalation of price

Works carried outside of contract period

Contract Works	50000	
Prelims	30000	
	<u>80000</u>	
Add say 5%	<u>4000</u>	

6. Summary

Siemens	8060
Disruption- sub contractors	3773
BB/S Disruption	1634
Deterioration	1500
Escalation	4000
	<u>18967</u>

This figure partly offsets the 33m cash vs value differential