## Revision 27\_26.9.7

		Column 1 Column 2 Column 3 Column 4 Column 5 Column 5 Column 6 Column 5 Column 6 Collated Summary Anticipated Degree of Collated Summary Anticipated Degree of Column 6 Column 7 Column 8 Column 8 Column 8 Column 9 Column 8 Column 9 Column														
Item	Opportunity	Filter	Proposal Origin		Opportunity Champion	Work Stream affected	Current Status	Scoop	Roley	Category		соор		oley	Contract Change Notice Ref	Comments (from 29.8.7)
											%age	£	%age	£		Requires action
SUMM	ARY (Columns 1 & 2)		SCOOP	ROLEY												
Infrac																
	Banked & Confirmed - Cat 1 (in base bids)  Banked - Cat 2 (confirmed by stakeholders	/TEL)	£8,513,442 £4,228,132	£5,331,442 £4,073,779												
	Furtherwork - Cat 3		£5,869,056	£4,984,268												
	Post Preferred Bidder - Cat 4 (Oct - Dec 200	07)	£9,950,000	£10,550,000												
Non I	Sub Total		£28,560,630	£24,939,489												
	Banked - Cat 5		£2,755,600	£2,755,600												
	Furtherwork - Cat 6 Sub Total		£7,530,500 £10,286,100	£7,530,500 £10,286,100												
Overa	II Total		£38,846,730	£35,225,589												
	OVERALL TOTALS							£38,846,730	£35,225,589			£8,513,442		£5,331,442		
3	BUILDINGS _ Andy Steel  Power supply - Rationalise layout of modular	Buildings	Scoop			Infraco	OPEN	£43,000		3		0		0		
	housings to reduce overall space requirements															
134	Substations - Some (all?) are shown on "stilts". Is this strictly necessary?	Buildings				Infraco	OPEN	£83,556		3		0		0		tie believe there is no benefit deleting this from the design - VE minute 3.9.7
	BUILDINGS TOTAL						OPEN	£126,556	£O			£0		£0		
	DEPOT Andy Steel															
	DEPOT Andy Steel															
7	Track geometry at the Depot - rationalise layout	Depot	Scoop		SDS	Infraco	OPEN	£140,000		2		0		0		
	Currently 32 turnouts at depot, remove 6 nr could result in £0.5m saving															
8	Delete depot pumping station/storm tanks by	Depot			PD	Infraco	OPEN	£193,526	£193,526	3		0		0		tie board approval.
	utilising existing gravity system which has been confirmed to be at a suitable level where diversion is not required. Who takes risk if it doesn't work?															£140k achieved, £190k estimated in Sign Off Sheet
9	Depot - Build part now with provision to expand in the future/reduce size of car park facilities	Depot	Project - 9.1.3 (see also item 10)		SDS	Infraco	OPEN	£230,000	£230,000	2		0		0		tie board approval 'At Risk' achieved, £230k estimated in sign off sheet - why is this Cat 2?
16	Depot - split vehicle accommodation system - requirement dependant on tram vehicle selection	Depot	Scoop			Infraco	OPEN	£27,500	£27,500	2		0		0		Sign Off Estimate £27.5k. How is this cat 2?
	requirement dependent on train vehicle Selection															
17	Depot - Track Maintenance Equipment - rationalise scope requirement	Depot	Scoop			Infraco	OPEN	£27,500	£27,500	2		0		0		Sign Off Estimate £27.5k. How is this cat 2?
20	Depot - deletion of one pavement (inner) .	Depot	Project - 7.2.2			Infraco	OPEN	£36,000	£36,000	2		0		0		
	Does this allow longer sidings?															
24	Depot - delete requirement for concrete apron to security fence	Depot	SDS			Infraco	OPEN	£6,080	£6,080	2		0		0		
1		l														I

28/09/2017

Technical Comment (Roley)

AS

17 Sept 07

TEL comment on Scoop if considered Transdev Comment by RNHJ 17 Sept relevant 2007

	Column 1 Column 2 Column 3 Column 4 Column 5 Column 6 Column 5 Column 6 Column 7 Col		Column 7			_										
						Colla	ted Summary	d Summary Anticipated		Anticipated Deg	gree of Succ	ess				
Item Opportunity	Filter	Proposal Origin	Opportunity Champion	Work Stream affected	Current Status	Scoop	Roley	Category	s	Scoop	F	Roley	Contract Change Notice Ref	Comments (from 29.8.7)	Technical Comment (Roley) AS 17 Sept 07	TEL comment on Scoop if considered Transdev Comment by RNHJ 17 Sept relevant 2007
26 Depot - Lower the roof sufficiently to allow the depot to rise 1.5 metres from the current level. (not incl in item 145)		Project - 7.2.8		Infraco	OPEN	£1,200,000	£1,200,000	1	100%	1,200,000	100%	1,200,000				
129 Depot - delete compressed air system, utilise 1 or 2 local compressors	Depot	Project - 16.3.2		Infraco	OPEN	£54,400	£54,400	2		0		0			Is already "banked" as VE saving at thi price! VE register 129 How are Tramlines shown at same price? Minor ER change if not already done.	s ER already modified I believe. CAF have expressed preference for power operated tools. Half-way house maybe to fit pipework and then decide on fixed compressor and reservoir at a later date but provide space for them.
144 Omit Piling at A8 - incl adds for soil nailing/excavation to north & discovery of 'chamber'. Change driven from footprint moved northwards as a consequence of Earl demise.	Depot					£3,850,000	£2,850,000	1	100%	3,850,000	100%	2,850,000		Bidders to confirm  £3.85m / £2.85m saving based on latest Scoop/Roley submissions (Includes estimated additions for re-design, excavation to north, & graded embankment).  DC VE Structures Report 10.9.7 - £2m*80%  GG - 17.9.7 All included in bids (Cat 1)		
145 Delete VE items 10, 11, 19 and replace with the following consolidated	Depot		•		OPEN	£3,181,264	£3,181,264	2		0		0		tie board approval.  A new depot plan available with elevations due Thurs 13.9.7. JP to refresh		
Depot - changes to initial Depot design driven by proximity to BAA runway (reduced bulk excavation), reductions in structural loadings (gantry crane reduced in capacity and size impacting on building frame and envelope), reductions in staff accommodation provision (reduced operational workforce reducing messing facilities, changing rooms, locker space, etc), reduction in fitout specification and a reduction in domestic utility capacity (reduced building volume and accommodation provision)														estimate on full implications of depot changes.		
DEPOT TOTAL					OPEN	£8,946,270	£7,806,270			£5,050,000		£4,050,000				
HIGHWAYS Susan Clark																
34a Lindsay Road - Vertical alignment optimization -	Highways	Scoop	SDS	Infraco	OPEN			4		0		0		Infraco & Mudfa		
minimise highway reconstruction																
34b Picardy Place - Vertical alignment optimization - minimise highway reconstruction	Highways	Scoop	SDS	Infraco	OPEN			4		0		0		Infraco & Mudfa		
36a Material recovery and reprocessing - MUDFA	Highways		GB	Mudfa	OPEN	£150,000	£150,000	6		0		0		SB - use Sign Off sheet estimate £150k		
2 options - reconstituted planings & Type 1R																
36b Material recovery and reprocessing - INFRACO				Infraco	OPEN					0		0				
2 options - reconstituted planings & Type 1R																
37 Reduction in extent of road reinstatement. Premis that base course/road base material used in lieu of wearing course until properly reinstated under INFRACO  MUDFA temporary reinstatements	Highways	Project		MUDFA	OPEN	£145,000	£145,000	6		0		0		MUDFA Team assessment of opportunity £145,000		
142 Highways - Deletion of twinned 800mm SW potable	Highways			MUDFA	OPEN	£0	£O	TBA		0		0		Was the diversion of this main always within the MUDFA Scope or is this		
water main around Gogar Depot and replace with single 800mm. By diverting the existing route of the pipeline from within the footprint of the depot around the perimeter the security of supply is maintained.														just COST AVOIDANCE?  MUDFA Team assessment £750,000 GB to confirm effect on Mudfa Risk Items		
152 (New) Reduce Kerb and associated re-instatement of pavement	Highways			INFRACO	OPEN		£100,000	3		0		0		BBS - rationalise where possible, e.g. where pavements are being widened do not replace	CEC planning issue? Does the Street/highway demarcation agreement help?	Cannot comment without more information, happening in detailed design in any case? Design has probably not yet reached the stage of establishing exactly what is required in any case.
153 (New) Reduce drainage run from guideway	Highways			INFRACO	OPEN		£100,000	3		0		0		BBS - Could be undertaken in conjunction with direct fix to guideway	Presumably refers to the Fastlink takeover? Would need further evaluation once existing drainage is understood.	Cannot comment without more information.
HIGHWAYS TOTAL					OPEN	£295,000	£495,000			£0		£0				
LAND & PROPERTYA Sim																
136 Land & Property - specific plots of land that may no longer be required	Land & property	Project		Land & Property	OPEN	£340,000	£340,000	5		0		0				
LAND & PROPERTY TOTAL					OPEN	£340,000	£340,000			£0		£0				
NETWORK RAILSteven Bell																
	1	1	l l	1 L		11 1		I	I	1	I	I	I	I	I	

		Column 1		Column 2	Column 3	Column 4	Column 5  Anticipated De		T	T	1				
Item	Opportunity	Filter	Proposal Origin		mpion Work Strea	m Current Status	Scoop	Roley	Category		Scoop	Roley	Contract Change Notice	Comments (from 29.8.7)	т
	NR Immunisation - ETN only to pay for Direct	NR	Project - 7.2.4		Infraco	OPEN	£2,800,000	£2,800,000	6		0	0	Ref	Not Infraco Scope.	1
	Current immunisation (£3.5m)														
	NETWORK RAIL TOTAL					OPEN	£2,800,000	£2,800,000			£0	£0			
	OLEAndy Steel														1
49	Overhead Contact system - Switchgear - rationalise	OLE	Scoop		Infraco	OPEN	£336,000	£336,000	2		0	0		VE sheet estimate £321.5k	4
	specification - considered "quite onerous"														
	OLE - Catenary opportunity in Sections 5 to 7 - replace trolley wire with catenary on segregated	OLE-	Project		Infraco	OPEN			3		0	0			1
	sections.														
130	Removal of Stainless Steel Cantilevers	OLE	Scoop 3		Infraco	OPEN	£37,300		2		0	0			4
137	Removal of Stanless Steel Cartillevers	OLL	3соор 3		iiiiaco	OPEN	237,300	1	3						
140	Removal of Stainless Steel Equipment Cubicles	OLE	Scoop 3		Infraco	OPEN	£8,400	0	3		0	0			Tram but w
149	(NEW) Provision of combined incoming and return cabinet	OLE	Roley		Infraco	OPEN		£42,000	3		0	0			Do no mean As it is
															some from t
															Might what E Traml
	OLE TOTAL					OPEN	£381,700	£378,000			£0	£0			-
	OLE TOTAL					OPEN	£381,700	£378,000			EU	EU			4
	STRUCTURESDavid Crawley/Tony														4
	Glazebrook														
52	Soil stabilisation - sub grade - stabilise with lime & cement - Taken to Phase 1b	Structures	Scoop		Infraco	OPEN					0	0			
53		Structures	Scoop		Infraco	OPEN					0	0			-
	block and crib walling, soil nailing, gabions etc in lieu of retaining walls - Taken to Phase 1b														
	Value Engineering developed for the final designs for all structures, particularly substructures and	Structures	Scoop, Roley, Project - 14.2.9	SDS	Infraco	OPEN	£8,000,000	£8,000,000	4		0	0		Scoop offer per ASt s'sheet £4m. DC Structures Report 10.9.7 - Tower PI (£2m*80%), Victoria Dock Br	1
	foundations													(£0.5m*80%) - funding to be from non tram source (non budget items) ie this is cost avoidance rather than a budget saving. Other structures incl are: Crewe Rd, Russell Rd, Roseburn St Br, Murrayfield Retaining	
														Wall & Training Pitches, Water of Leith Br, Brd Drive Ret Wall, Russell Rd Br, Crewe Rd Gdns Br, Coltbridge Via, Gogarburn Br, South Gyle Acc Rd Br & Roseburn Ter Br & Carrick Kn Br & all	
														totalling £5.705m*80%. Item 57 A* underpass £2m*80% - traffic diversion arrangements key (bidder dependent) ie least cost option may =	
														higher short term disruption. GG 17.9.7 - per GG review of remaining structures listed in DC Report	
55	Edinburgh Park Bridge - utilise steel beams in lieu of concrete Edinburgh Park Viaduct	Structures	Project, Scoop, Roley		Infraco	OPEN	£1,000,000	£1,000,000	4		0	0		DC Structures Report 10.9.7 - Highly dependent on steel costs & NEL agreement. Bidder cost statements at odds with budgeted position so	1
			,											saving in doubt. Prudent to reduce to £250k*80%.  GG 17.9.7 - £1m - Infraco bidder to advise proposals for achieving	
														structures savings	
56	Structures - Carricknowe Bridge Parapet - down	Structures	Project - 7.2.3	SDS (TR	C)/JP Infraco	OPEN					0	0			-
	grade from P6 / P5 to N2 (reduced cost of parapet plus knock on effect on deck design/cost)														
	Opportunity reflected within I tem 54 pending further design														
57	Structures - A8 Underpass - over sized?	Structures	Project - 24.1.32	SDS	Infraco	OPEN					0	0			1
	Opportunity reflected within I tem 54 pending further design														
		Structures	Project All12		Infere:	ODEN						0			1
	Structures - Eastburn Ave Works - flood defence works - ensure no over scoping, betterment or over funding	Structures	Project - AH13		Infraco	OPEN					0	0			
	Opportunity reflected within I tem 54 pending further design														1

28/09/2017

Technical Comment (Roley)
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TEL comment on Scoop if considered Transdev Comment by RNHJ 17 Sept 17 Sept 07
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milines have offered similar proposal with higher savings.

Seems a modest saving to obtain an inferior result. NOT RECCOMMENDED.

Seems a modest saving to obtain an inferior result. NOT RECCOMMENDED.

Agree with TEL.

not totally understand what this Seems ok on the face of it. ans.
it is labelled OLE assume it is nething to do with the feeds to and in the OLE at sub-stations. In the quite sensible and could be at BW are already proposing for milines.

Cannot comment without more information.

								Column 2 lated Summary	Column 3	3 Column 4 Column 5 Column 6 Column Anticipated Degree of Success						
Item	Opportunity	Filter	Proposal Origin	Opportunity Champion	Work Stream affected	Current Status	Scoop	Roley	Category	s	Эсоор Эсоор	R	oley	Contract Change Notice Ref Comments (from 29.8.7)	Technical Comment (Roley)  AS  17 Sept 07  TEL comment on Scoop if considered relevant	d Transdev Comment by RNHJ 17 Sept 2007
59	Structures - reduce structure thickness by 25mm  Opportunity reflected within I tem 54 pending further design	Structures	Project - AH115		Infraco	OPEN					0		0			
60	Structures - EARL Structure S33 - remove from estimate	Structures	Project - 14.2.6		Infraco	OPEN	£913,442	£913,442	1	100%	913,442	100%	913,442	Not relevant. Bidders to clarify		
131	Structures - minimise alteration work to Holiday Inn Access Bridge to bare minimum proposed in HMRI Design Substantiation Report "Roseburn Corridor: Holiday Inn Access Bridge" Doc Number ULE90130- 03-REP-00206 i.e. provide compressible board and Joint seal	Structures				OPEN			3		0		0			
132	Structures - delete requirement for compensatory floodwater storage at Gogarburn in line with proposa contained in report "Compensatory Floodwater Storage Assessment" Doc Number ULE90130-07-REP-00029 V1	Structures				OPEN			3		0		0			
	Structures - Haymarket Viaduct - redesign to reduce cost of deck  Structures - Lindsay Road Retaining Wall - simplify design or delete entirely through discussion with CEC, FP			DC DC		OPEN	£250,000	£250,000	4		0		0	DC Structrures Report 10.9.7 - estimated £0.25m*80% . The design can be produced to satisfy CEC Planning. GC 11.9.7 - Infraco bidder to advise proposals for achieving structures savings DC Structrures Report 10.9.7 - estimated £2m*80% assuming agreement with Forth Ports GC 17.9.7 - additioanl costs to be funded by Forth Ports		
154	(New) Class 7 material conversion -	Structures	Project		INFRACO	OPEN		£300,000	3		0		0	Class 7 material converted to RE fill for S21B and S21D, W8 (W of Leith to New Balgreen Road Br Wingwall Material suitable for conversion in the Depot excavation will need to be identified and and "set aside" as soon as possible.	Please refer to the latest update on the VE structures for current proposal for these structures. Also ensure that VE structures team are aware of these latest proposals as they may be different from that proposed earlier by BBS.	Is this already included in bids? No problem in principle.
155	(New) W11 structure	Structures	Project		INFRACO	OPEN		£50,000	3		0		0	Bankhead drive retaining wall to be constructed in conjunction with direct fix of reail to structures, fine tuning of track alignment will reduce or remove the need for a retaining wall.	Please refer to the latest update on the VE structures for current proposal for this structure. Also ensure that VE structures team are aware of this latest proposal as it may be different from that proposed earlier by BBS.	Cannot comment without more information.
	STRUCTURES TOTAL					OPEN	£10,163,442	£10,513,442			£913,442		£913,442			
63	SUPERVISORY & COMMSAndy Steel/Alastair Richards Signalling & Comms -De-spec some requirements off EBIScreen eg the requirement for making Radio calls from it, selecting CCTV cameras, etc	Supervisory & Comms	Scoop		Infraco	OPEN	£91,000		3		0		0	Scoop confirmed £91k. Put to TPB Sign Off sheet estimate £27.5k		
65	Signalling & Comms - fewer CCTV cameras	Supervisory & Comms	Scoop		Infraco	OPEN	£266,000	£266,000	1	100%	266,000	100%	266,000	sign off sheet estimate E87.5k Scoop/Roley confirmed £266k BBS have included a number of camers which meet the requirements of the ITN, further savings would need to be developed with tie.	Tramlines have offered similar proposal Agreed and near identical price.  Suggest this is because both bidders have responded to the AS/RJ revised CCTV headcount of c90 cameras.  The ER may have been tidied up already to reflect this (can TK comment)	Agreed
66	Signalling & Comms - Delete Mimic Display Panel in the CTC	Supervisory & Comms	Scoop		Infraco	OPEN	£78,000	£65,000	1	100%	78,000	100%	65,000	Scoop/Roley confirmed £78k/£65k	Tramlines have offered similar proposal and near identical price.  See TEL comment. Note no mimic was acceptable to Transdev.  Simple change to ER	Agreed with proposal to remove entirely
68	Signalling & Comms - Dual feed the Tramstop Equipment Panels from adjacent substations instead of having a separate UPS in each cabinet	Supervisory & Comms	Scoop		Infraco	OPEN	£166,000	£20,000	1	100%	166,000	100%	20,000	sign off sheet estimate £87.5k Scoop/Roley confirmed £166k/£20k	Tramlines have offered similar proposal. However BBS proposal offers substantially greater savings. It may be that two bidders now have different approach to the need for any UPS in addition to the dual feed. That would need overall of UPS requirements in IEX Agree with TEL comment that RAMS risk has to stay with bidder.	Agreed in principle; needs some detailing to confirm
69	Signalling & Comms - rationalise fibre optic rings - are 3 really necessary? More economic architecture that performs the same function could be employed	& Comms	Scoop		Infraco	OPEN			3		0		0			
70	Signalling & Comms - Provide separate pieces of Control Equipment on each Operators desk instead of integrating them on a touch screen console		Scoop		Infraco	OPEN	£70,000		3		0		0			
71	Signalling & Comms - fewer Operator positions (Also fewer operators - OPEX)	Supervisory & Comms	Scoop		Infraco	OPEN	£20,000	£10,000	1	100%	20,000	100%	10,000	Roley £10k - Opex Issue (GG)	Tramlines have offered similar proposal Agreed but with twice the savings. Simple change to ER	Agreed. Actually no opex saving as the positions were only ever shown to allow for future expansion and were not expected to be provided or planned to be staffed.
28/09/20	17										4					

Column :				1	Column 1 Column 2 Column 3 Column 4 Column 5 Column 6 Column 7 Collated Summary Anticipated Degree of Success								1							
Item	Opportun	iity	Filter	Proposal Origin		Opportunity Champion	Work Stream affected	Current Status	Scoop	Roley	Category		coop		oley	Contract Change Notice	Comments (from 29.8.7)	Technical Comment (Roley) AS	TEL comment on Scoop if consider relevant	red Transdev Comment by RNHJ 17 Sep 2007
li c	Signalling & Comms - Current ocation and interface of the S controllers etc is unnecessarily based on Nottingham Tram wo complex and user friendly opti	CADA and Points complex. A solution ould provide a less	Supervisory & Comms n	Scoop			Infraco	OPEN	£13,000		1	100%	13,000	100%	0	Ref		17 Sept 07		200
	Signalling & Comms - rationali combining some loop function:		Supervisory & Comms	Scoop			Infraco	OPEN	£87,500	£87,500	2		0		0		Scoop/Roley confirmed £87.5k BBS feel loop qty can be optimised further, this would have to be developed with tie to ensure the System perfomance is not comprimised	Tramlines have offered similar propos but with less savings. Essentially this will be the final development of the SDS design Not an ER issue. Agree with TEL comment	al If no reduction in ultimate system performance then fine, but performance ri- remains with Infraco.	Agreed; rationalisation would always be sk part of detailed design in any case
75	Signalling & Comms - Remove on the passenger announceme	ambient noise sens ent system	Supervisory & Comms	Scoop			Infraco	OPEN	£7,000	£7,000	1	100%	7,000	100%	7,000		Scoop/Roley confirmed £7k	Tramlines have offered similar propos and near identical price. Still require night/day changeover Simple change to ER	al Agreed	Agreed
133 \$	Signalling & Comms - GPS bas positioning detection (i.e Virtu	eed signalling and tr al Loops)	am	Scoop			Infraco	OPEN	£316,723	E50,000	3		0		0		Cannot happen if Item 23 taken. Red denotes PR calc 1a/1b Sign Off Sheet Estimate cautious £500k BBS do not recommend a GPS based signalling system as accuracy of tram positioning will be poor, BBS estimate cost saving to be £50,000	but with much higher savings. This wo be the level that would be expected	nd ve	Agree with TEL that insufficient information available.
	SUPERVISORY & COMMS TO	DTAL						OPEN	£1,115,223	£505,500			£550,000		£368,000					
:	SYSTEM WIDESusa	n Clark																-		
	Optimise the work site lengths ensure efficient construction o		to System Wid	Project - 5.1.1			Infraco	OPEN	£300,000	£300,000	4		0		0		Probability = £1.5m to £.75m range * 20% Sign Off Sheet £300k SC email 17.9.7 £300k			
80 /	Accept more disruption over sl maximise efficiency of constru	norter period to ction operations -	System Wid	e Project - 5.1.1		SC/AH/KR	Infraco/Tramco	OPEN	£100,000	£100,000	4		0		0		Probability = £1.0m to £.5m range * 20% Sign Off sheet £100k SC email 17.9.7 £300k			
148 (F	(New) Remove spare capacity from ( linked to item 69)	NTO	System Wid	е			Infraco	OPEN		£180,000	3		0		0		Current system includes capacity ofr 1A & 1b		D	
	(New) Option ot lease UPS provision than purchase	from Supplier rathe	System Wid	е			Infraco	OPEN		£300,000	4		0		0		The BBS supplier of UPS equipment offers the leasing/rental of UPS eqiuipment with or without maintenance.	This might be worth looking at commercially However how does it relate to the proposal at 3 above? Would require overall review of total UPS requirements across the system.	Await commerical details.	Cannot comment without more information.
151	(New) Rationalising spares supplied v	vith the Infraco bid	System Wid	e			Infraco	OPEN		£300,000	4		0		0		BBS would suggest that the level of initial spares supplied as part ofd the Infraco contract could be reviewed and reduced and other options such as SLA delivery mechanisms adopted	made last minute "savings" by removi spares other than consumable from the supply (both infrastructure and trans). The operator ending up buying later a premium with system availbility compromised in the process. In this case the Infraco has maintenan	e take a safe-bet on spares requirement insufficient spares is of no use to a anyone, regardless of contractual responsibility. Reputationally if the transystem is not reliable everyone sufferse. Would recommend leaving this as wore to be further developed during the initial phase of the contract.	ts. n s.
157	(New) Omit Section from OCT to Nev	vhaven Rd.					Infraco	OPEN			4		0		0		Range between £6-7.5m. Mid range taken meantime.			
																		1		
	SYSTEM WIDE TOTAL							OPEN	£400,000	£1,180,000			£0		£0					
																		1		
	THIRD PARTYJim Mo	Ewan																		
			1	•	. 1				1								1	•		

	Column 1 Column 2 Column 3 Column 4 Column 5 Column 6 Column 7								•										
					Opportunity	Work Stream	Current	Со	llated Summary			Anticipated De	gree of Succ	ess					
Iten	n Opportunity	Filter	Proposal Origin	1	Champion	affected	Status	Scoop	Roley	Category	s	соор	.	Roley	Contract Change Notice	Comments (from 29.8.7)	Technical Comment (Roley)  AS	TEL comment on Scoop if consider relevant	ed Transdev Comment by RNHJ 17 Sept 2007
90a	Murrayfield Pitch Relocation - Flood prevention	Third Party	Project			Infraco	OPEN	£1,915,600	£1,915,600	5		0		0	Ref		17 Sept 07		
	scheme																		
90b	Murrayfield Pitch Relocation - mods only to Waranders Club House	Third Party	Project			Infraco	OPEN	£500,000	£500,000	5		0		0					
	THIRD PARTY TOTAL						OPEN	£2,415,600	£2,415,600			£0		£0					
	TRACK FORM Steven Bell																=		
		Tanaliform	Canan		SDS	Infranc	ODEN	20,000,000			4000/	0.000.000	4000/			Con effected by Conn inch in boadling bid figure. Only applied to Conn	=		
91	Track bed construction details - reduce track slab thickness with structurally efficient members	Trackform	Scoop		303	Infraco	OPEN	£2,000,000		1	100%	2,000,000	100%	0		£2m offered by Scoop incl in headline bid figure. Only applies to Scoop.			
92	Track form - specific application of types - adopt ballasted track wherever possible. <b>Predominantly</b>	Trackform	Scoop			Infraco	OPEN					0		0		Already in - GG	Tramlines have offered similar proposa	Consistent position has been that there is	not Clarity needed about where proposal to
	Phase 1b saving?																but with much higher savings. Suspect this is because BBS relates to	TEL do not see merit in pursuing this.	s. be applied; otherwise agree with TEL.
	Taken to Phase 1b																reduced scope on 1A while Tramlines is system wide.	S	
																	See TEL note. Perhaps to be re-visited on site by site		
																	basis as part of "last resource" review. Not an ER issue as such.		
07	Thinner track slab impact on MUDFA (linked to 91	Trackform	Project -			MUDFA	OPEN	£2,462,500	£2,462,500	6		0		0		MUDFA Team assessment of opportunity £500,000 - No back up received.			
,,,	above)	Trackroini	24.1.26			mobin	OI EIV	12,402,500	12,402,300							GB says £2.5m includes Infraco (item 91)needs resolution.			
100	Noise attenuation (outside of Roseburn Corridor) 3,650m of fencing	Trackform	Project - 31.1.9			Infraco	OPEN					0		0					
	o,osom or randing																		
120	3 Trackform - changing embedded to ballast rail.	Trackform	Scoop 2			Infraco	OPEN	£3,000,000		3		0		0		E/O saving proposed by Scoop 24.8.7 not in headline bid fig. Applies to	Surely this is the same as their Ref 8	Consistent position has been that there is	not. Agreed that this is reputition
136	Trackform - changing embedded to ballast rail.	ITACKIOITII	эсоор з			IIIIIaco	OPEN	13,000,000		3				"		Scoop only.	above?	ballast in certain locations for good reasor TEL do not see merit in pursuing this.	s.
																	See previous comments	TEE do not see ment in parsuing this.	
156	(New) Track installation installation in strips	Trackform	Roley			Infraco	OPEN		£2,000,000	3		0		0		Install trackform in discrete strips rather than in one complete chanel	This has never been formally raised by the BBS track team (Bilfinger or		Cannot comment without more information; feel very nervous.
																	Siemens) Therefore it is surprising to se it appear like this especially with such a	ee	
																	large figure associated with it. It has certainly been done elsewhere but there		
																	still has to be the certainty that track gauge and relative alignment can be		
																	maintained for the life of the system. That will require more information than		
																	presented here. Timescales for PB probably do not permit this.		
																	Suggest leave open for option for use in	n	
																	particular areas for PB stage.		
	TRACK FORM TOTAL						OPEN	£7,462,500	£4,462,500			£2,000,000		£0					
																	_		
	TRACTION POWERJim McEwan																		
103	3 11Kv Traction Power feeds to sub stations (12 nr at		Project -		TK	Infraco	OPEN	£1,468,742	£1,468,742	3		0		0		Sign Off Sheet has £2.4m achieved & £1.47m estimate	=		
	£302k each)	Power	31.1.16																
																	_		
104	Network Reinforcement - not to be paid for by ETN	Traction Power	Project - 31.1.16		AD/BE	Infraco	OPEN	£1,973,000	£1,973,000	6		0		0		Sign Off Sheet has £2.2m achieved & £2.45m estimate			
108	Power supply - Track / Bypass isolators - switches	Traction Power	Scoop			Infraco	OPEN	£101,888	£87,535	2		0		0		Scoop/ Roley confirmed £102k/£88k	Tramlines have offered similar proposa	OK so long as no increased training or licensing obligations.	Agreed in principle; needs some
	could be combined with the DC switchgear in the substation	Fower															but with higher savings.  Do not think needs ER change but only		detailing to confirm
																	minor if does. Acceptable.		
																	Note TEL comment. However this is nothing to do with manual/motorised,		
																	only the bringing together of all switchgear in one place.		
-	Dougramphy Dissell Dd TDU	Tractic	Scoop			Infra -	OPE												
109	Power supply - Russell Rd TPH - could equipment for future upgrade to substation be supplied when this is	s Power	Scoop			Infraco	OPEN	£56,809		3		0		0					
	actually realised? i.e. don't supply transformer rectifier now.																		
158	(New) Power Supply (up to passenger operation) -							£300,000	£300,000	4		0		0		£1.3m in DFBC (fully inflated)	1		
	possible over allowance in DFBC																1		

		Column 1 Column 2 Column Collated Summary Opportunity Work Stream Current			Column 3		Column 5 Anticipated Deg									
Item	Opportunity	Filter	Proposal Origin		Opportunity Champion	Work Stream affected	Current Status	Scoop	Roley	Category	s	icoop	R	roley	Contract Change Notice Ref	Comments (from 29.8.7)
	TRACTION POWER TOTAL						OPEN	£3,900,439	£3,829,277			£0		£0		
110	TRAM STOPSAlistair Richards/Geoff Gilbert Delete 2 tram stops (Ocean Drive & S Gyle) leaving provision for adding stops back in the future. This is unlikely to be acceptable politically. Plus 2 x Phase 1b stops	Tram Stops	Project - 31.1.13		tie/Tel	Infraco	OPEN			3		0		0		
112	Prefab drop-in tram stops and other items. It has been agreed that substations will be package substations	Tram Stops	Project - 24.1.30		GG	Infraco	OPEN			3		0		0	>	
113	Tram stops - finishes to be minimum standard throughout	Tram stops	Project - 5.1.24		SDS	Infraco	OPEN			3		0		0		
	TRAM STOPS TOTAL						OPEN	£0	£0			£0		£0		
	TRAMSAlistair Richards															
	Tram mock-up - use an existing mock-up rather than purchasing new	Trams	Project - 24.1.10		DP	Tramco	OPEN					0		0		Not in budget
	Reduce fleet size - run 8+8 on 1a only (26 trams) or 6+6 on 1a and 1b (26 trams) build in option to buy additional trams in the future)	Trams	Project - 24.1.4		AR	Tramco	OPEN					0		0		
119	Reduce fleet size - delete 1 tram from spare capacity and accept risk to lower performance	Trams	Project - 5.1.17		AR	Tramco	OPEN	£500,000	£500,000	3		0		0		
121	Trams - place passenger counters on only 20% of fleet - not whole fleet. Counters deemed inaccurate	Trams	Project - 31.1.5		AR	Tramco	OPEN			1	100%	0	100%	0		£400k saving in Tramco Bid
	Trams - Reduce service to 4 trams per hour on Phase 1b, saving 2 trams - then press Developer to buy 2 trams to increase service frequency Taken to Phase 1b	Trams			Project - 14.2.3	Tramco	OPEN			3		0		0		
	TRAMS TOTAL						OPEN	£500,000	£500,000			£0		£0	_	
	OVERALL TOTALS  NOTE: Financial Impact calculated on average						OPEN	£38,846,730	£35,225,589			£8,513,442		£5,331,442		

NOTE: Financial Impact calculated on average Max/Min impact multiplied by the probability of success

DEFINITIONS	
BANKED'	Items offered by bidders or developed by project team.
IN PROGRESS'	Potential for further saving (undisclosed)
CLOSED'	No Value / Dead

28/09/2017

Technical Comment (Roley)

AS

17 Sept 07

TEL comment on Scoop if considered Transdev Comment by RNHJ 17 Sept relevant 2007

Do not really understand.

Presumably they are suggesting less intensive service leading to lower peak demand. However reducing transformer size to say 800kVA should give more than £20k savings. Do not understand this proposal, increasing power supply in future was economic upgrade, rather than sconping and replacing all the substation equipment. Would doubt whether this will represent VFM, or something that the bidders will stand behind.

Do not understand this proposal.

EDINBURGH TRAM PROJECT - PHASE 1A

VALUE ENGINEERING OPPORTUNITIES REGISTER (VERSION 2)

Revision 27\_26.9.7

							Column 1	Column 2	Column 3	Column 4 Column 5	Column 6 Column 7		
							Co	llated Summary		Anticipated Deg	gree of Success		
n	Opportunity	Filter	Proposal Origin	Opportuni Champior	y Work Stream affected	Current Status	Scoop	Roley	Category	Scoop	Roley	Contract Change Notice Ref	Comments (from 29.8.7)

Technical Comment (Roley)
AS
TEL comment on Scoop if considered Transdev Comment by RNHJ 17 Sept 7 relevant 2007