



**Parsons  
Brinckerhoff**

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4<sup>th</sup> October 2007

**tie** Limited  
CityPoint, 1<sup>st</sup> Floor  
65 Haymarket Terrace  
Edinburgh  
EH12 5HD

Attention: Tony Glazebrook

Dear Tony

***SDS Infraco Presentations***

In response to a request from **tie** SDS participated in a presentation to your two Infraco Bidders at the Apex Hotel on 20th September last.

Your morning meeting with Scoop (David Moreland, Mike Burgess, John Pearson, Ian Webb, Graham Spencer, Colin Neil and Jon Nicholls) was chaired by Ray Dent (**tie**) and attended by Lindsay Murphy and Toby Klinski (**tie**) and Alan Dolan, Bruce Ennion, Scott Ney, Gavin Clement and Mungo Stacy (SDS). Copy of completed 'Persons Present' attached.

Your afternoon meeting with Roley (Richard Walker (Part time), Scott McFadden, Steve Wright, and Guido de Bakker) was chaired by Lindsay Murphy (**tie**) and attended by Toby Klinski (**tie**), Alastair Richards (TEL - Part time) and Alan Dolan, Bruce Ennion, Scott Ney, Gavin Clement, and Mungo Stacy (SDS). Copy of completed 'Persons Present' attached.

Each meeting commenced with the SDS Excel presentation followed by a Question and Answer session. SDS is pleased to attach a copy of their notes of the questions raised by each of your bidders and the answers provided by the various parties (SDS, **tie** and TEL) recoded by SDS during each presentation.

In view of the fact that these notes are in a 'faithful but simple' format SDS would wish to discuss the format and content of their notes with **tie** before they are considered for distribution to any third party.

SDS are pleased to advise **tie** that a soft copy of their presentation was subsequently provided by SDS to **tie** on 26th September 2007 and immediately entered by **tie** (Howard) into the **tie** Infraco Due Diligence Data Room (12.16Hrs - 26.09.07)

Yours sincerely



**Alan Dolan  
Parsons Brinckerhoff**

cc. Jason Chandler      SDM's  
Bruce Ennion

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SDS Presentation to **tie** Infraco Bidder (**Roley**) held at the Apex Hotel Edinburgh held on the afternoon of 20th September 2007

Record of Questions and Answers.

**Q1 Approvals and Consents Tracker – there is not a lot of green showing.**

SDS The Approvals and Consents Tracker is updated fortnightly and issued to **tie**. **tie** may wish to issue this to their bidders. The design approval process is built around an eight week cycle commencing with an informal submission and prior consultation to minimise the duration of the formal approval process.

**Q2 How do SDS capture ties requirements?**

SDS SDS's Agreement with **tie** is to progress their design by means of a structured procedure covering the submission of Requirements Definition Specifications based upon a Requirements Data Base followed by Preliminary Designs which are currently progressing to Detail Designs. In all cases these have been issued to **tie** for their review and all **tie**'s comments have been formally recorded and returned to SDS via a Record of Review (ROR) process. Such comments (graded into three categories) have been incorporated before the next stage in this process is commenced.

**Q3 We understand the Employers requirements have been taken out of the control of SDS**

SDS This is not quite correct as SDS produced all the original base documents Requirements Definitions as mentioned earlier, and **tie** have enhanced these.

**tie** As has been explained the Employers Requirements are essentially a development of the SDS Requirements specifications.

**Q4 We are surprised that tie has not provided SDS with an update of their Employers Requirements.**

SDS SDS has been provided with an update however they have not received instructions. SDS are aware that **tie** are reviewing a number of VE packages however, again, SDS will not necessarily be working to these until in receipt of a Change Order.

TEL This is part of the Design Review process which is ongoing at the moment.

**tie** Your Stray Current proposals do not currently comply with the Employers Requirements however this is something that can be reviewed at the preferred bidder stage.

**Q5 What is the process for 'Issue for Construction?'**

SDS This is open for negotiation as it is not seen to be part of the SDS obligation although there is money available to correct drawings.

TEL SDS is coming up with a test plan to ensure completion.

SDS All the hazards identified on the Hazard Log have to be closed out as part of the CDM process.

**Q6 Where are we with Building Fixings?**

SDS SDS has developed an OLE Reference Design which has identified Pole locations and building fixing locations based upon an external survey of buildings along the route. SDS has produced a Building Fixing Report and their Reference Design has been progressed within the Tram Design Working Group. The notification process

has commenced advising owners where it is proposed to fix to their buildings. This entails a twenty eight day turn round/response period and is part of the SDS Approvals and Consents Process. The present tie/CEC/SDS planning strategy is that planning approval has also been obtained for pole locations in the event building fixing is not achieved.

Dialogue will be required with the Infracore as they may consider providing something different.

SDS anticipates that the structural assessment of the buildings will be a SDS/Infracore exercise which could be 'in-house' or external.

Bidder BBS would wish to see liability rest with SDS

SDS SDS believes a dialogue is required.

**Q7 CAF has been announced as Tram Preferred Bidder. Does this impact on Design?**

SDS All tram bidders provided technical information during their bidding process. SDS provided tie with an Assumed Tram Report which was an amalgam of technical and performance criteria based upon information obtained from the Tram market place. The SDS design caters for any changes to these criteria declared by the Tram Bidders and the Assumed Tram.

**Q8 What is the present position with Scottish Power?**

SDS SDS has been asked to provide technical assistance to tie and attended a meeting yesterday with Scottish Power with a view to move this aspect forward. SDS are not aware of any discrepancies between Scottish Power and SDS Specifications.

**Q9 What are the interfaces with Scottish Power /Stray Current etc**

SDS tie have established a Stray Current Working Party and scheduled a series of ten meetings over the next few months. Representation of the various Statutory Undertakers will be present, a project footprint test will need to be carried out and the situation carefully monitored to protect ties interests.

*Mr Richard Walker left the meeting to meet with Mathew Cross and Geoff Gilbert.*

**Q10 Where does the project stand with Utilities?**

SDS tie have awarded a MUDFA contract which is progressing in Sections 1a & 1b. Design submissions continue however Stats are taking longer to process than programmed. SDS understands the MUDFA works may be reprogrammed. Lindsay Road and Ocean Terminal are presently on hold. The Depot redesign has moved Section 6 back a little.

**Q11 What utility assumptions have been made for Trackform**

SDS there are agreements between tie and the stats.  
There are key dimensions that are used 1.2m down from top of rail & 2.3m from DKE (approx) thus providing maintenance safety unless stats agree tram can run over service providing it is protected.  
SDS do not anticipate anything inside the 'concrete' other than possibly an HV main in Leith Walk

**Q12 Is there any geotechnical data as to ground under the track?**

SDS Do not consider there is a need to open up

**Q13 This is the last question on the list. What if we find something?**

SDS If you find something this could be a compensation event for both SDS and BBS

**Q14 What is the position in respect of Road Traffic signalling?**

SDS This forms part of the Roads Design

**Q15 There appear to be 139 crossings in the BoQ but little definition.**

SDS Some of the existing Crossings are to be signalled.

**Q16 Type approval will be required?**

SDS Yes SDS anticipate CEC will require type approved products.

**Q17 We would like discussion on the Geotechnical aspects of the works.**

SDS No problem but the approach must be via tie and SDS would appreciate an agenda in advance to ensure their right people attend. SDS design teams are heavily committed at this moment.

Bidder We will Email Bob tomorrow.

SDS Presentation to **tie** Infraco Bidder (**Scoop**) held at the Apex Hotel Edinburgh held on the morning of 20th September 2007

## Record of Questions and Answers

**Q1 – What is the confidentiality of questions raised during this SDS presentation?**

SDS - **tie** - *Anything not advised as confidential will be shared with others.*

**Q2 – Are VE outputs being advised to Infraco by Geoff Gilbert?**

SDS – **tie** – *Will check think so.*

**Q3 – Have SDS quantified usable/replaceable kerbs?**

SDS - **SDS/tie** are developing a strategy with CEC – Roads/Kerbs detail design will be available between now and end of year – Not quantified at this moment

**Q4 - Will they still be available?**

SDS - **CEC** indicate so – **CEC** Urban design is being developed around the City – design ongoing

**Q5 - Has it advanced to the stage where carriageway is restructured or overlaid?**

SDS - *Horizontal and vertical design now ongoing – work in process.*

**Q6 - Section 1b – Service tunnel appears to be a grey area?**

SDS - **SDS** understands that **tie/Scottish power** discussions are ongoing however **SDS** further understands that no work is required at this location. If something emerges from the ongoing discussions **SDS** will need review and revisit as necessary.

**Q7 - tie have indicated that they wish the contractor to be involved with VE. Will this apply to Section 1 alignment or is it a given?**

SDS *Suggest tie answer but SDS are under pressure to provide savings but retain functionality. If bidder were able to produce cost effective design then tie may wish to consider – tie to answer.*

**tie** *tie agrees with the interpretation provided by SDS.*

SDS *Don't underestimate the efforts that have gone into the design so far however if the bidder is of the opinion cheaper ways can be found then they should be advised to tie*

*Bidder detailed attention to the vertical alignment can produce savings whilst the horizontal alignment could reduce planning's.*

SDS *There have been lots of iterations between Roads and Track. Some locations the existing roads are not to adoptable standards – SDS are obliged to bring them to the necessary standard*

*Bidder The vehicle characteristics, twist etc influences the design and we would wish to sit with the designers, not for 2 hours but for the necessary days*

SDS *Understand*

**Q8 - Infraco have discussed the implications of outstanding works following MUDFA and seek information**

SDS *SDS anticipates the 'As Built' will be lifted by tie and placed on the IT platform.*

**Q9 the Infraco believes there is significant money in the Murrayfield works. Has any VE work been considered?**

SDS *Not aware of any specifics*

TEL *Flood defences have are being looked at but not sure if anything else.*

- Q10 What is the extent of the service diversions associated with Network Rail?**  
 SDS SDS have identified these in a report to **tie**.  
**tie** There are ongoing discussions with Network rail.
- Q11 Is there any specific type of Reinforced Earth?**  
 SDS Client will consider any economical method.
- Q12 Good to see the skew of the bridge is reduced (A8/Gogar Depot)**  
 SDS Considerable work has been carried out
- Q13 When is the EARL implication going to be firmed up (Gogar Depot)?**  
 SDS Ongoing at the moment  
 Bidder Understands this will be within a 'couple of weeks'
- Q14 What is the financial implication of the demise of EARL?**  
 SDS Not able to answer however do not anticipate this to be an increase  
 TEL No increase but structures decrease
- Q15 Are the planners anticipating Substations will be dressed, polished granite finishes etc?**  
 SDS All painted finishes c/w security fences – very basic
- Q16 When do SDS anticipate releasing information?**  
 SDS Immediately – this is being put on the **tie** it site
- Q17 What do we anticipate as the maximum height of retaining walls – Roseburn Corridor?**  
 SDS Block walls – approximately 2m to 4m
- Q18 Have SDS looked at the use of Spiral Steel structures?**  
 SDS Not considered as required at this location.
- Q19 Holiday Inn Bridge – Where are the column bases?**  
 SDS These will be shown on the drawings
- Q20 Is there any progress with the drainage and outfall position at the Depot?**  
 SDS This work does not form part of the Depot Design – however anticipated drainage to the 1800 main with some being pumped.
- Q21 What stage are SDS in the development of the Drainage and Ducting?**  
 SDS Of 178 SDS cross section drawings, 38 are at stage 5 (sufficient to go to IDC) 94 at Stage 4 (information coming in). SDS considers overall 75% complete or better SDS have to show integration of their design and adequate spatial requirements are achieved.
- Q22 What provision has been made for the necessary UTC Interface?**  
 SDS E&M procurement specifications have been provided to **tie**. This interface requires input from the Infraco
- Q23 Availability of SDS OLE?**  
 SDS SDS anticipates their Reference Design as being available in October/November.
- Q24 What is the percentage allowed for Spare trackside cable ducts?**  
 SDS Design ongoing but 1 or 2 for Tram but nothing presently allowed for others.

*Bidder Infraco advised they have allowed for provision for others.*

**Q25 The tie normalisation process includes for an additional substation. What is SDS position?**

*SDS SDS is currently reviewing the possibility of a 1a and 1b construction split and anticipates a report to tie by mid/late October.*

**Q26 Are SDS actively involved with the Traffic management aspects of the works?**

*SDS SDS is involved as part of their support role developing TRO's for tie. SDS anticipate this element will tail out by December/January 2008 SDS are not promoting this but providing advise as tie have their own Traffic management experts.*

*TEL Junction modelling and design is a SDS responsibility.*

**Q27 Is there an Approvals & consents tracker?**

*SDS Yes SDS manages and processes all Approvals & consents and tie have a copy of the Tracker.*

**Q28 How does the SDS Design programme interface with the Infraco Construction Programme?**

*SDS SDS understand that tie integrate all relevant programmes into their Project Programme. SDS provide tie with regular updates of their design Programme.*

**Q29 How do SDS envisage their Detail Design Process once Preferred Bidder is announced?**

*SDS SDS are open in respect of this and anticipate tie will produce the necessary protocol.*  
**tie** *All drawings will be placed in the data room for access by the preferred bidder. Tie have requested information from the bidders in respect of critical issues to discuss in a closed or open forum – noise, soil etc tie will set up any necessary meetings or provide the necessary answers.*

**Q30 The onus is being put on us to seek information?**

**tie** *Yes – to get yourselves comfortable*

**Q30 Are we reaching the stage where our skills and experience will benefit the project?**

**tie** *There may be a degree of confusion however tie wish to capitalise on bidders experience*

*Bidder We must make a judgment as to whether we can influence the design.*

**tie** *you must ask and utilise the TQ process.*

*Bidder we are unable to raise TQ's on design not done.*

**Q31 How close are we to a complete area to look at?**

*SDS SDS is currently in the middle of their design process and anticipates the end of October for 1b*

**Q32 What about final Trackform? We have the SDS drawings and had various discussions with tie in respect of the various options available.**

*SDS There are informal discussions with Steven Bell following his discussions with the bidders. SDS anticipates this as within one or two weeks following which SDS will consider and possibly seek further discussion.*

**Q33 What is the situation in respect of EMC? We have had discussion with Nico Decker however SDS were not present?**

*SDS SDS have not been involved however SDS are aware that tie have engaged a Immunisation Manger.*

**Q34 We do not have a complete set of ties Employers requirements.**

**tie** You have Version 2.4 and a number of key sections. **tie** are currently working on Version3 and anticipate this as being available in 2 weeks.

**Q35 Are there any elements where operational requirements are pushing the project costs?**

**SDS** SDS is of the opinion that any relaxation in **ties** performance requirements must produce a saving. Runtime is an example. **tie** are carrying out their own VE Review however SDS are not aware of the outcome.

**Q36 Are there any other areas?**

**SDS** Roseburn Corridor retaining walls

**Bidder** We believe there are other opportunities in the Roseburn Corridor.



# Edinburgh Tram --- SDS Design Presentation held on Thursday 20th September 2007

## Persons present

Name	Company	Representing	Role/Responsibility
Scott Ny	PB	SDS	Section Design Manager
Carin Hunt	PB	SDS	" " "
Kunho Stact	PB	SDS	" " "
TOST KISKEY	TSS	TSS	Project Manager Procurement
Guido de Bakker	Siemens (BBS)	BBS	<del>Signaling</del> Rail Automation
Steve Wright	Siemens (BBS)	BBS	<del>Signaling</del> Senior Power manager
SCOTT MCFADZEN	Bilfinger (BBS)	BBS	Project Director
Lindsay Murphy	ti	ti	Interface Manager
Alan Dolan	SDS		Dupuls Proj. Manager
Bruce Gunn	"		Passent Manager
RICHARD WALKER	Bilfinger Berger Parsons	BBS	MO.
ALASTAIR RICHARDS	te/tel	te/tel	ORM Director

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# Edinburgh Tram --- SDS Design Presentation held on Thursday 20th September 2007

## Persons present

Name	Company	Representing	Role/Responsibility
MIKE BURGESS	TRAMLINES/BOMBARDIER		BID DIRECTOR
IAN WEBB	"		MAINTENANCE
GRAHAM SPENCER	"		ESTIMATING
John Power	TRAMLINES		Production Manager
G. Colin New	TRAMLINES/Emmerson		Regional Director
DAVID MORELAND	TRAMLINES		DIRECTOR
Lindsay Murphy	tie		Interface Manager
MURDO STACY	SDS		SECTION DESIGN MANAGER
Bruce Emison	SDS		Procurement
Alan Doherty	"		Deputy Project Manager
Gavin Abmont	SDS		Section Design Manager
Scott New	SDS		Section Design Manager
Jon Nicholls	Tramlines		Project Manager (Bombardier)
Toby Kliskey	TSS		Project Manager Procurement
Alastair Richards	TEC		