

Period 9 - 2008/009 Primary Risk Register

| Risk Description | | | | | | | | | | | |
|------------------|---|---|--|------------|--------------|------------|--|-----------------|----------------|-----------|--------------|
| ARM Risk ID | Cause | Event | Effect | Risk Owner | Significance | Black Flag | Treatment Strategy | Previous Status | Current Status | Due Date | Action Owner |
| 139 | Utilities diversion outline specification only from plans | Uncertainty of Utilities location and consequently required diversion work/ unforeseen utility services within LoD | Increase in MUDFA costs or delays as a result of carrying out more diversions than estimated | G Barclay | [Redacted] | | Carry out GPR Adien survey | Complete | Complete | 31-Oct-07 | J Casserly |
| | | | | | | | Identify increase in services diversions. MUDFA to resource/re-programme to meet required timescales. | Complete | Complete | 23-Nov-07 | J McAloon |
| | | | | | | | In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer | On Programme | On Programme | 30-Jan-09 | A Hill |
| 164 | Utilities assets uncovered during construction that were not previously accounted for; unidentified abandoned utilities assets; asbestos found in excavation for utilities diversion; unknown cellars and basements intrude into works area; other physical obstructions; other contaminated land | Unknown or abandoned assets or unforeseen/contaminated ground conditions affect scope of MUDFA work. | Re-design and delay as investigation takes place and solution implemented; Increase in Capex cost as a result of additional works. | I Clark | [Redacted] | | Carry out GPR Adien survey | Complete | Complete | 31-Oct-07 | J Casserly |
| | | | | | | | Identify increase in services diversions. MUDFA to resource/re-programme to meet required timescales. | Complete | Complete | 23-Nov-07 | J McAloon |
| | | | | | | | In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer | On Programme | On Programme | 30-Jan-09 | A Hill |
| 44 | SDS contractor does not deliver the required prior approval consents in line with SDS V31 | Late prior approval consents | Delay to programme with additional resource costs and delay to infraco. Impact upon risk balance. | D Sharp | [Redacted] | | Evaluation of prior approval programme | Complete | Complete | 31-Oct-08 | D Sharp |
| | | | | | | | Hold fortnightly Roads Design Group | Complete | Complete | 31-Dec-07 | T Glazebrook |
| | | | | | | | Informal consultation prior to statutory consultation | On Programme | On Programme | 31-Dec-08 | T Glazebrook |
| | | | | | | | Integrate CEC into tie organisation/accomodation (office move) | Complete | Complete | 4-Jun-07 | T Glazebrook |
| | | | | | | | Weekly Meetings of Approvals Task Force | On Programme | On Programme | 31-Dec-08 | D Sharp |
| 173 | Uncertainty over extent of contaminated land on route | Tramway runs through area of previously unidentified contamination and material requires to be removed and replaced (dig and dump). | Increase in costs to remove material to special and other tip. | R Bell | [Redacted] | | Issue containation and gi report to Infracco bidders | Complete | Complete | 2-Mar-07 | B Dawson |
| | | | | | | | tie to obtain ground investigation and contamination reports from SDS | Complete | Complete | 30-Mar-07 | A McGregor |

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| 52 | Political and/or Stakeholder objectives change or require design developments that constitute a change of scope; Planning Department requires scope over and above baseline scope in order to give approval (may be as a result of lack of agreement over interpretation of planning legal requirements). | Amendments to design scope from current baseline and functional specification. | Programme delay as a result of re-work; Programme delay due late receipt of change requirements and lack of resolution; Scope/cost creep (dealt with through change process); Project ultimately could become unaffordable. | D Sharp | [Redacted] | [Redacted] | Close working relationship with CEC and stakeholders | On Programme | On Programme | 31-Jan-11 | L Murphy |
| | | | | | | | Weekly critical issues meeting | On Programme | Complete | 31-Jul-08 | T Glazebrook |
| 928 | Major single safety incident (including a dangerous occurrence) during construction | Safety incident during construction | Delay (potentially critical) due to HSE investigation and rework. PR risk to tie and stakeholders. | S Clark | [Redacted] | [Redacted] | All Site Staff to get CSCS or equivalent | On Programme | On Programme | 31-Jan-11 | C McLauchlan |
| | | | | | | | Develop and Implement Incident Management Processes | Complete | Complete | 27-Apr-07 | T Condie |
| | | | | | | | HSQE Audits, site inspections and Management Safety Tours to be carried out | On Programme | On Programme | 31-Dec-10 | T Condie |
| | | | | | | | Safety Induction to be carried out for all site staff | On Programme | On Programme | 31-Dec-10 | T Condie |
| | | | | | | | Site Supervisors to be appointed by tie | Complete | Complete | 28-Feb-07 | S Clark |
| 931 | Utilities assets uncovered during construction that were not previously accounted for; unidentified abandoned utilities assets; known redundant utilities; unknown live utilities; unknown redundant utilities. | Unknown or abandoned assets impacts scope of Infracore work | Re-design and delay as investigation takes place and solution implemented; Increase in Capex cost as a result of additional works. | D Sharp | [Redacted] | [Redacted] | GPR surveys in areas where there are likely to be services | Complete | Complete | 1-Apr-07 | T Glazebrook |
| | | | | | | | MUDFA trial holes to verify GPR surveys | On Programme | On Programme | 31-Jan-09 | P Douglas |
| 977 | Legal challenge. Extension of statutory consultation process. Large number of objections. TRO process is subject to a public hearing process. | Delay in achievement of TRO(s) due to a large number of public objections and/or a legal challenge to using a TTRO to construct Infracore. | Requirement to start construction using TTROs | K Rimmer | [Redacted] | [Redacted] | Use of TTROs to undertake construction of permanent works in advance of permanent TROs being approved. | On Programme | On Programme | 30-Jan-11 | K Rimmer |

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| 271 | Inadequate quality of submission of approval. Partial submission of package. Programme compression. Lack of CEC resources. | Failure to process prior approvals applications within 8 weeks | Delay and disruption to Infraco programme | D Sharp | [Redacted] | [Redacted] | Agree approvals submission arrangements with CEC to align with SDS design programme and procurement programme. | Complete | Complete | 31-Mar-08 | T Glazebrook |
| | | | | | | | Assure the quality and timing of submissions | On Programme | On Programme | 31-Dec-08 | D Sharp |
| | | | | | | | Final agreement to be approved by Roads Authority, CEC Promoter, CEC in-house legal and tie | Complete | Complete | 28-Feb-07 | T Craggs |
| | | | | | | | Finalise alignments and gain agreement from CEC | Complete | Complete | 29-Dec-06 | T Craggs |
| | | | | | | | Weekly meetings of Approvals Task Force | On Programme | On Programme | 31-Dec-08 | D Sharp |
| Where appropriate increase case officer resource to cope with programme compression | Complete | Complete | 31-Oct-08 | D Fraser | | | | | | | |
| 1033 | Failure of Infraco to mobilise in time to commence work in line with programme. | Failure of Infraco to mobilise in time to commence work in line with programme. | Delay to programme. Cost overruns. Negative publicity. Criticism from stakeholders | S Bell | [Redacted] | [Redacted] | Continued focus at Infraco progress meetings as well as programme workshops to mitigate the impacts of any delay | On Programme | On Programme | Complete | S Bell |
| | | | | | | | Implementation of Advanced Works programme in order to mitigate potential future issues during construction | On Programme | On Programme | Complete | R Bell |
| | | | | | | | Infraco given instructions to proceed at risk | On Programme | On Programme | Complete | R Bell |
| | | | | | | | Pressure from Approvals Task Force to ensure Technical and Prior Approvals are delivered | On Programme | On Programme | 31-Dec-08 | D Sharp |

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| 1076 | Utilities do not finish diversion works prior to Tramworks commencing work | Tramworks are unable to commence work or work is delayed/disrupted | Delay and disruption claims from BSC. | R Bell | | | Tramworks PMs attendance at Traffic Management meetings. Weekly meetings between tie Tramworks and Utilities PMs. 4-weekly tie Tramworks/Utilities management meetings. Identification of programme clashes between Tramworks and Utilities works tracked | N/A | On Programme | 31-Jul-09 | R Bell |
| 1077 | Lack of visibility of design changes between November 2007 and May 2008 | Tramworks price based on a design which may have been altered. Unclear who authorised design change. | | R Bell | | | Establish a process which will act as a control mechanism for design changes. (If one exists already then ensure process is complied with) | N/A | On Programme | 31-Dec-08 | T Glazebrook |
| 1078 | Lack of effective engagement from BSC leaders towards tie and third parties (NR, BAA, Forth Ports) and the Tram project as a whole. | Failure of partnership approach between tie and BSC. Failure to maintain effective third party relationships with key third parties. | | R Bell | | | Engagement between tie and BSC at different levels. Regular review of BSC management of third parties as per Employers Requirements. | N/A | On Programme | 31-Dec-08 | R Bell |
| 1079 | Failure of BSC to effectively resource up for project | Lack of competent resources within BSC to safely and effectively deliver Tram project | Delay to programme and additional cost | R Bell | | | Ongoing review of BSC resources and formal review at 4-weekly meeting. Objectives to be set for BSC at monthly meetings in order to monitor progress. | N/A | On Programme | 31-Dec-08 | R Bell |
| 1080 | TPB have agreed a 5 week embargo on Leith Walk from 12 Dec 08 to 19 Jan 09. | Leith Walk embargo causes delay to construction and utility diversion works. | Delay to programme, extension of time claim. Additional costs. | R Bell | | | Minimise contractors exposure by identifying other work scopes outside the embargo area. | N/A | On Programme | 31-Jan-09 | R Bell |
| 1081 | Traffic modelling has shown that one lane needs to be kept open on Princes Street during works | Princes Street works take longer than programmed due to one lane being kept open. | Delay to programme, extension of time claim. Additional costs. | R Bell | | | Production of robust programme to mitigate losses | N/A | On Programme | 5-Jan-09 | R Bell |