

## Forth Replacement Crossing

DMRB Stage 3 Scheme Assessment Report: Part 2 – Engineering, Traffic and Economic Assessment  
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### Cost Estimate

This appendix provides a detailed breakdown of cost estimates for each element of the project.

**Table 1: North Network Connections Cost Estimate Breakdown**

Description	£m (Q4 2006)
Preliminaries <sup>1</sup>	34
Roadworks	32
ITS <sup>2</sup>	6
Structures	46
Environmental Mitigation Works	2
Accommodation Works	1
Contractor's Design	5
Statutory Undertakers' Costs	2
<b>Total</b>	<b>128</b>

**Notes to Table 1:**

<sup>1</sup> **Preliminaries:** The Preliminaries section of the estimate allows for the costs associated with setting up the site and the management of the construction phase of the project. This includes allowances for the Contractor's site offices and staff costs and also covers items such as site wide plant including cranes and transport. Traffic management is included in this section.

<sup>2</sup> **ITS** costings are comprised of two primary elements, ITS equipment and ITS cabling, cabinets and civil infrastructure works. The costs are developed on the basis that ITS equipment will be purchased by Transport Scotland through existing framework contracts, whilst the Contractor will be responsible for installation, commissioning and integration. Equipment supply has therefore been included within the Employer's costs. All ITS civil infrastructure costs are included in the tables contained in this appendix.

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**Table 2: South Network Connections Cost Estimate Breakdown**

<b>Description</b>	<b>South Network Connections £m (Q4 2006)</b>
Preliminaries <sup>1</sup>	13
Roadworks	26
ITS <sup>2</sup>	6
Structures	8
Environmental Mitigation Works	3
Accommodation Works	1
Contractor's Design	3
Statutory Undertakers' Costs	2
<b>Total</b>	<b>62</b>

**Notes to Table 2:**

<sup>1</sup> **Preliminaries:** As Table 1.

<sup>2</sup> **ITS:** As Table 1.

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**Table 3: Bridge Cost Estimate Breakdown**

Description	Bridge £m (Q4 2006)
Special Preliminaries <sup>1</sup>	16
Foundations	110
Structure	230
Finishes	51
Accommodation Works	1
Environmental Mitigation	1
General Preliminaries <sup>2</sup>	100
Site Investigation	3
Contractor's Design	31
<b>Total</b>	<b>543</b>

**Notes to Table 3:**

<sup>1</sup> **Special Preliminaries** in the bridge estimate account for the provision and removal of temporary facilities such as access roads and jetties, works compounds and procurement of concrete batching plants, etc. Items directly associated with a work activity have been priced with the activity in either the foundations or structure portion of the estimate, e.g. costs associated with the deck assembly yard have been included with deck assembly steelwork. The costs of operating the batching plants have been included in the relevant work sections involving on site concrete construction.

<sup>2</sup> **General Preliminaries:** A possible organisation structure has been produced and matched to the construction programme to establish a staffing profile for the various activities. This profile has then been priced to derive staff costs for each of the bridge construction's main activities and included within General Preliminaries. Similarly, the requirements for general plant, equipment, site accommodation (offices, stores, workshops, etc) and indirect labour in precasting and assembly yards have been estimated and priced in General Preliminaries. Allowances have been included for the costs of acquiring performance bonds and insurances, and for financing the lag in the Contractor's cash flow.

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**Table 4: M9 Junction 1a, Cost Estimate Breakdown**

<b>Description</b>	<b>Junction 1a £m (Q4 2006)</b>
Preliminaries <sup>1</sup>	11
Roadworks	12
ITS <sup>2</sup>	8
Structures	4
Environmental Mitigation Works	1
Accommodation Works	1
Contractor's Design	2
Statutory Undertakers' Costs	0
<b>Total</b>	<b>39</b>

**Notes to Table 4:**

<sup>1</sup> Preliminaries: As Table 1.

<sup>2</sup> ITS: As Table 1.

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**Table 5: Intelligent Transport Systems (Fife) Cost Estimate Breakdown**

<b>Description</b>	<b>Fife ITS £m (Q4 2006)</b>
Preliminaries <sup>1</sup>	3
Roadworks	1
ITS <sup>2</sup>	6
Structures	0
Environmental Mitigation Works	0
Accommodation Works	0
Contractor's Design	0
Statutory Undertakers' Costs	0
<b>Total</b>	<b>11</b>

**Notes to Table 5:**

<sup>1</sup> Preliminaries: As Table 1.

<sup>2</sup> ITS: As Table 1.