

Scottish Trunk Road Network Management Contract

Schedule 4 – Measurement, Rates & Prices

South East Unit

This is Schedule 4 Measurement, Rates & Prices referred to in the foregoing Agreement between Scottish Ministers and BEAR Scotland Limited dated 18th March 2020 relative to the Scottish Trunk Road Management Contract for the South East Unit.

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Method of Measurement: General

Method of Measurement for Highway Works

Volume 4 Section 1 Method of Measurement for Highways Works hereby apply unless amended otherwise by this Schedule 4 Measurement, rates and prices.

Notes for Guidance on Method of Measurement

Notes for Guidance contained within Volume 4 Section 2 Method of Measurement for Highway Works will apply except where the Method of Measurement has been amended by this Schedule 4 Measurement, rates and prices.

Library of Standard Item Descriptions

The library of standard descriptions as contained within Volume 4 Section 3 Method of Measurement for Highways Works is not used.

Chapter I

Definitions

Definitions

Definitions given in Volume 4 Section 1 Chapter I of the Manual of Contract Documents for Highway Works hereby apply unless amended otherwise and as stated below.

Delete all references to "Bill of Quantities" and replace with "Schedule of Rates and Prices".

Delete all references to "Contractor" and replace with "Operating Company".

Delete sub paragraph 1(c) and insert the following sub paragraph 1(c):

1(c) "Schedule of Rates and Prices" means a list of items giving brief identifying descriptions each of which have a financial or percentage rate.

Chapter II

General Principles

General Principles

General Principles given in Volume 4 Section 1 Chapter II of the Manual of Contract Documents for Highway Works hereby apply except as stated below.

Delete all references to "Bill of Quantities" and replace with "Schedule of Rates and Prices".

Delete all references to "Contractor" and replace with "Operating Company".

Chapter III

Preparation of the Schedule of Rates and Prices

Preparation of the Schedule of Rates and Prices

Delete Preparation of Bill of Quantities set down in Volume 4 Section 1 Chapter III of the Manual of Contract Documents for Highway Works and replace with the following:

Sub-division of Schedule of Rates

The Schedule of Rates is to be divided as appropriate into separate levels of identification.

Units of Measurement

The following abbreviations shall be used for the units of measurement:

Unit	Abbreviation	Unit	Abbreviation
cubic metre	m ³	month	month
day	day	number	no
hour	hr	square metre	m ²
kilogramme	kg	sum	sum
kilometre	km	tonne	t
metre	m	week	wk
millimetre	mm		

Preambles to the Schedule of Rates and Prices

Delete Preambles to Bill of Quantities set down in Volume 4 Section 1 Chapter III of the Manual of Contract Documents for Highway Works and replace with the following:

- General Directions 1 The Schedule of Rates and Prices has been prepared generally in accordance with the principles used in the *Method of Measurement for Highway Works published by The Stationery Office as Section 1 of Volume 4 of the Manual of Contract Documents for Highway Works* as amended by this Schedule.
- The relevant publication date of each page of the *Method of Measurement for Highways Works* is given in the Schedule of Pages and Relevant Publication Dates within this Schedule 4 Measurement, rates and prices.
- The Method of Measurement for Highway Works is amended:
- (i) by replacing the word "Contractor" wherever it occurs with the words "Operating Company",
 - (ii) by construing any reference to "rates", "prices", "Rates", "Prices", "rates and prices" or "Rates and Prices" to mean a reference to rates and prices contained in the Schedule of Rates and Prices, and
 - (iii) by replacing the full stop to the last item in Item coverages with a semi colon in every case where additional items have been added.
- 2 In the Schedule of Rates and Prices the sub-headings and item descriptions identify the work covered by the respective items, read in conjunction with the matters listed against the relevant marginal headings, these Preambles, the amendments to the *Method of Measurement for Highway Works* immediately following these Preambles and the *Method of Measurement for Highway Works*, where not amended by this Schedule 4 Measurement, rates and prices.
- The nature and extent of the work and, where relevant, its frequency of execution, is to be ascertained or assessed by reference to the

Conditions of Contract, the Scottish Ministers' Requirements, and this Preamble.

- 3 The rates and prices entered in the Schedule of Rates and Prices shall be deemed to be the full inclusive value of the work covered by the several items including the following, unless expressly stated otherwise:
- (i) Labour and associated costs;
 - (ii) The supply of materials, goods, storage and associated costs including delivery to anywhere within the Unit, taking delivery of materials and goods supplied by others, unloading, storage, and associated costs;
 - (iii) Plant including Constructional Plant and associated costs;
 - (iv) Fixing, erecting and installing or placing of materials and goods in position;
 - (v) Temporary works and Design of temporary works;
 - (vi) Temporary repairs of Defects and maintaining temporary repairs prior to permanent repair;
 - (vii) The effect on the phasing of the Operations or any element of the Operations to the extent set forth or reasonably implied;
 - (viii) General obligations, liabilities and risks involved in the execution of the Operations set forth or reasonably implied in the documents on which the Final Tender Submission is based;
 - (ix) Temporary accommodation and welfare at individual Sites and all accommodation, depots, stores and other similar facilities required by the Operating Company;
 - (x) Wastage and consumables;
 - (xi) Testing and measuring in accordance with this Contract including supplying results of tests and measurements including providing test Certificates;
 - (xii) Attendance and transport for sampling and testing carried out by the Overseeing Organisation;

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- (xiii) Checking, inspecting, examining, measuring and verifying goods, materials and workmanship including supplying results, reports and Certificates;
- (xiv) Traffic safety and traffic management measures as required by this Contract;
- (xv) All travelling connected with Operations;
- (xvi) Complying with the quality management requirements of this Contract and providing Certificates of conformity;
- (xvii) Providing land for plant including Constructional Plant, stores, working space, borrow pits or spoil dumps required;
- (xviii) Communication system;
- (xix) Insurance provision;
- (xx) All obligations, activities duties and responsibilities of the Operating Company set out in this Contract commencing at the Service End Date until such time as such obligations activities duties and responsibilities have been executed by the Operating Company;
- (xxi) Vehicles, communication system and operatives for the Overseeing Organisation;
- (xxii) Consultation approvals consents and any other thing required from to or with the Operational Partners to obtain access and method of working for rebuilding including but not limited to Historic Scotland to enable timescales for rebuilding to be achieved;
- (xxiii) Information signs and or boards on all Sites;
- (xxiv) Access provision, maintenance and removal including Design of accesses;
- (xxv) Temporary diversion of traffic;
- (xxvi) Temporary disconnection of electrical assets and reconnection;
- (xxvii) Temporary overhead feed to road lighting units
- (xxviii) Keeping, maintaining and providing all supporting records of the Operations; including measurement records, photographic

records, material delivery tickets, waste transfer records, inspection and testing records;

(xxix) Obtaining data from and importing data into the systems of the Scottish Ministers;

(xxx) Locating buried cables as Series 1400 paragraph 4 and Series 1500 paragraph 4;

(xxxi) Overheads and profit.

Measurement 4 The measurement of quantity against each item shall be computed from the dimensions stated in the Design or physically measured in the absence of such dimensions unless stated otherwise in this Schedule 4.

The measurement of quantity against each item shall be computed net to the nearest whole number, except for:

(i) measurement of tonnage, hectares and kilometres in which cases the quantities shall be to three decimal places;

(ii) measurement of hours for which the quantity shall be to the nearest quarter hour;

(iii) measurement of mobilisation items which shall be a % of the item sum to the nearest whole percentage point;

(iv) measurement of months shall be to one decimal place.

Adjustment Items 5 The Schedule of Rates and Prices contains adjustment items.

The purpose of the adjustment item is to vary the content of the original item to which the adjustment applies.

Where adjustment items have been included in the Schedule of Rates and Prices they shall be deemed to include the same features and Item coverage of the original Schedule of Rates and Prices item to which they apply.

Pricing of Items 6 Rates and prices are expressed to two decimal places.

For items where the rate is '%', a percentage value is expressed and not a decimal equivalent. For example, five percent is expressed as '5' and not '0.05'.

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Summation of Like Work	7	<p>Where provision has been made in the Schedule of Rates and Prices for items of like work to be measured and paid for in various quantity bands, the measurement shall be that obtained by the summation of the final quantities of like work within a Scheme, unless otherwise stated.</p> <p>For example, where several separate areas of surface course are carried out within a Scheme the item measured will reflect the summated quantities of surface course replaced.</p>
Alternative Specified Materials, Designs and Options Within Types of Pavement	8	<p>Where a choice of alternatives is permitted in this Contract, the item description and the rates and prices inserted shall be deemed to include any of the permitted alternative materials or Designs the Operating Company may elect to use.</p> <p>In all cases the rates and prices inserted in all Series of the Schedule of Rates and Prices shall be deemed to include for any adjustments of work content, rates, costs, programming, method of working and other effect occasioned by the choice of alternatives elected to be used or constructed by the Operating Company.</p>
Privately and Publicly Owned Services or Supplies	9	<p>The Operating Company shall allow in the rates and prices for locating, marking and taking measures for the support and full protection of pipes, cables and other apparatus.</p> <p>The rates and prices shall include for obtaining the written consent and anything else required of, from, to or with the Relevant Organisation or Operational Partner to interrupt the service or supply and for keeping the Scottish Ministers informed in writing of all arrangements it makes with owners of privately owned services or supplies, Undertakers and Statutory Authority and other parties as appropriate.</p>

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Location, Frequency and timescales of Schedule items	10	<p>The Operating Company shall allow in the rates and prices for carrying out the Operations at any location within or associated with the Unit. This will include any additional inventory listed in Schedule 2 Appendix 1 Attachment 1.4 Trunk Roads Outside the Unit, and any other location within 1 km straight-line distance of the nearest Trunk Road boundary.</p> <p>The Operating Company shall allow in the rates and prices for carrying out the Operations and shall also allow for the items in the Schedule of Rates and Prices being used only once, a number of times or not at all during this Contract.</p> <p>The Operating Company shall allow in the rates and prices for undertaking any Operations within the timescales prescribed in this Contract and or any Order.</p>
Roadworks Overall Requirements	11	<p>The Operating Company shall allow in the rates and prices for complying with requirements in respect of pavement construction, horizontal alignments, surface levels and surface regularity of pavement courses, cold weather working, use of surfaces by traffic and plant including Constructional Plant, and general requirements for sub-bases and road bases.</p>
Work Above Non-Tidal Open Water or Tidal Water	12	<p>The Operating Company shall allow in the rates and prices for taking measures to execute all Operations above non tidal open water and above mean high water springs.</p> <p>The mean high water springs and mean low water springs are equivalent levels relative to chart datum determined by the United Kingdom Hydrographic Office.</p>
Dealing with Flow	13	<p>The Operating Company shall allow in the rates and prices for taking measures to deal with the existing flow of water, sewage and other flowing material.</p>
Taxes Levies Contributions Premiums Refunds or Landfill Tax	14	<p>The Operating Company shall allow in the rates and prices for all taxes, levies, contributions, premiums, refunds or landfill tax as described in Schedule 1 – Conditions of Contract – Clause 5 - Payment.</p>

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Site Limitations and Constraints	15	The Operating Company shall allow in the rates and prices for complying with any limitations and constraints on the use of or connected with the Unit.
Hard Material	16	<p>“Hard material” means the following:</p> <p>(a) material which requires the use of blasting, breakers or splitters for the removal but excluding individual masses less than 0.20 cubic metres, or</p> <p>(b) existing pavements, footways, paved areas (but excluding unbound materials) and foundations in masses in excess of 0.20 cubic metres.</p>
Equivalent Products and Materials	17	<p>Where the Operating Company offers an equivalent product or material in place of the one identified or specified, which is accepted for incorporation into the Operations by the Scottish Ministers, then the rates and prices are deemed to include for all the obligations and costs associated with the incorporation of the equivalent into the Operations, including but not limited to Design, provision of data and Drawings, Certificates, awaiting approvals consents and other similar considerations, re-submissions and modifications and amendments to the Operations.</p> <p>Unless specifically stated to the contrary in this Contract the measurement of the Operations affected by the incorporation of the equivalent products and materials shall be based on this Contract and not on the Operations as amended and completed to incorporate the equivalent products and materials.</p>
Management and Supervision of Operations	18	The Operating Company shall allow in the rates and prices for the management and supervision by the Operating Company of Operations.
Repair Work and Alterations	19	<p>Various elements of the Schedule of Rates and Prices identify work of repair or alteration.</p> <p>Notwithstanding such separately identified items the Operating Company shall allow in the rates and prices for executing any of the other items in the Schedule of Rates and Prices as repairs or alterations.</p>

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Time Band Percentage Adjustment	20	<p>The Operating Company shall allow in the rates and prices in the Schedule of Rates and Prices for executing Operations during Normal Working Hours.</p> <p>The following Series shall be deemed to allow for working at any time and shall not be subject to time band adjustment irrespective of when Operations are carried out:</p> <ul style="list-style-type: none">(i) items in Series 6100 to 6700 (inclusive) and 6900 to 7000 inclusive, and(ii) Items which have a Unit of measurement of “day“, or “sum”.
Other Work on the Unit, the Police and Emergency Services	21	<p>The Operating Company shall allow in the rates and prices for the presence from time to time of authorised contractors and bodies and other third parties executing work on the Unit.</p> <p>Emergency Services require access through the Unit at all times and the Operating Company shall allow in the rates and prices for complying with this requirement.</p>
Journey Time Reliability	22	<p>The Operating Company shall allow in the rates and prices for non-productive work or restricted working hours due to having to accommodate public or road users to facilitate journey time reliability.</p>
Traffic Safety and Traffic Management	23	<p>The Operating Company shall allow in the rates and prices for traffic safety and traffic management to undertake the Operations.</p> <p>The rates and prices shall include the Design, provision, maintenance and removal of and any costs related to traffic safety and traffic management measures referred to in Schedule 5 – Specification & Drawings and the following:</p> <ul style="list-style-type: none">(i) phasing the Operations in a manner acceptable to the Director, Traffic Scotland and the police for the continuing flow of traffic including maintaining access to properties;(ii) complying with the requirements of the '<i>Traffic Signs Regulations and General Directions</i>' and with the recommendations contained in Chapter 8 of the <i>Traffic Signs Manual</i> or where the circumstances of any particular case are not covered, including but not limited to any additional traffic safety and traffic management measures required by the police, submitting proposals for dealing

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with such situations including but not limited to risk assessments and other similar reports information and advice to the Director;

(iii) enhancement of the requirements of Chapter 8 of the *Traffic Signs Manual* as deemed necessary by the Operating Company to satisfy specific Site safety risk assessments;

(iv) continuing traffic safety and management outside the boundaries of the Unit when associated with Operations on the Unit and including all necessary liaison with Relevant Organisations, Statutory Authorities, Undertakers, Operational Partners, relevant authorities and other third parties;

(v) requirements to deal with reduced Lane widths due to any reason including but not limited to convoy working;

(vi) alterations to traffic management measures or programmes to take account of events on or outwith the Unit that prevent or constrain the use of traffic management or planned Operations;

(vii) Provision of time-related advance notification for Operations including variable messaging signage.

Measuring, Sampling and Testing	24	The Operating Company shall allow in the rates and prices for measuring, sampling and testing as required by this Contract.
Payments to Undertakers	25	The Operating Company may be required to place orders with Undertakers, holders of licences issued in accordance with Section 109 of the <i>New Roads and Street Works Act 1991</i> , franchise holders, and other similar parties for renewal, maintenance or repair of services on the Unit and the payment for such orders may be required in advance of the work being undertaken and the Operating Company shall allow for this and all associated costs in dealing with payments to Undertakers.
Disposal of Waste	26	Where the Item coverage requires disposal of waste the Operating Company shall allow in the rates and prices for disposal to a licensed disposal or recycling facility.
Remove from Store	27	The Operating Company shall allow in the rates and prices for remove from store for collecting from stores on or off the Site or from where material has been set aside.

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Changes in Cost	28	The Operating Company shall allow in the rates and prices for all changes in the cost of Contract Personnel, plant including Constructional Plant, materials or other costs incurred that are not recovered through the provisions of Schedule 1 – Conditions of Contract, Clause 5 – Payment, for Contract Price Fluctuations.
Additional Work Series	29	In addition to the standard Series the following additional Series are included: 3300 Site Investigation, 6100 Core Operations, 6200 Professional Services, 6300 Fee Percentages for Design, Procurement and Management, 6400 Adjustment to Schedule of Rates and Prices, 6500 Time Work Schedule, 6600 Third Party Works, 6700 Changes in Scope of Operations, 6800 Carrying out Operations in another unit, 6900 Payment of Accounts, 7000 Lump Sum Quotations.
Amendment to the Method of Measurement	30	For the purpose of this Contract the <i>Method of Measurement for Highway Works</i> is amended in accordance with the following publication dates:

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Schedule of Pages and Relevant Publication Dates

Chapter/Series	Page Number	Publication Date	
Contents	1	November 2004	
	2	May 2005	
	3	November 2004	
	4 to 7 inclusive	May 2005	
Chapter I	1 to 3 inclusive	March 1998	
Chapter II	1	March 1998	
	2	May 2001	
Chapter III	1	March 1998	
	2	May 2001	
	3 to 12 inclusive	May 2004	
	13	November 2006	
	14 to 16 inclusive	May 2005	
Chapter IV	15 to 19 inclusive	November 2006	
	1	March 1998	
	100	1 to 2 inclusive	March 1998
		3 to 7 inclusive	May 2001
		8	November 2004
		9 to 11 inclusive	May 2001
		12	November 2004
		13 to 15 inclusive	May 2001
	200	1	May 2001
		2 to 3 inclusive	May 2004
	4	May 2001	
300	1 to 5 inclusive	May 2001	
400	1 to 2 and 4 to 8 inclusive	November 2004	
	3	November 2006	

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Chapter/Series	Page Number	Publication Date
500	1 to 5 inclusive	May 2001
	6	November 2004
	7 to 13 inclusive	May 2001
	14	May 2005
	15	May 2001
	16 to 17 inclusive	May 2005
	18	May 2001
	19	November 2003
600	1	May 2002
	2	May 2001
	3	March 1998
	4 to 11 inclusive	November 2004
	12	May 2002
	13 to 14 inclusive	November 2004
	15 to 38 inclusive	May 2001
	N1 to N3 inclusive	May 2002
700	1	May 2001
	2	May 2002
	3	May 2001
	4 to 5 inclusive	May 2002
	6	May 2001
	7 to 9 inclusive	May 2002
	10	May 2001
	11	May 2002
	12 to 13 inclusive	May 2001
	14	May 2002
	15 to 18 inclusive	May 2001

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Chapter/Series	Page Number	Publication Date
800	Not taken up	
900	Not taken up	
1000	Not taken up	
1100	1	May 2001
	2	November 2004
	3	May 2001
	4 to 5 inclusive	May 2002
	6	May 2001
	7 to 8 inclusive	May 2005
	1200	1 to 2 inclusive
3 to 5 inclusive		March 1998
6 to 11 inclusive		May 2001
1300	1 to 3 inclusive	November 2003
1400	1 to 2 inclusive	May 2001
	3	May 2005
	4 to 8 inclusive	May 2001
	9	May 2005
	1500	1 to 2 inclusive
3		May 2005
4 to 7 inclusive		February 2003
8 to 12 inclusive		May 2001
1600	1 to 2 inclusive	March 1998
	3 to 6 inclusive	May 2001
	7	March 1998
	8 to 19 inclusive	May 2001
1700	1	May 2004
	2	May 2001

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Chapter/Series	Page Number	Publication Date
	3	May 2004
	4 to 11 inclusive	May 2001
1800	1	March 1998
	2 to 5 inclusive	May 2001
1900	1	May 2003
2000	1	May 2002
	2 to 3 inclusive	May 2001
2100	1	March 1998
2200	Not taken up	May 2004
2300	1 to 3 inclusive	March 1998
2400	1 to 3 inclusive	May 2001
	4	March 1998
2500	1 to 2 inclusive	May 2001
2600	Not taken up	
2700	1	May 2001
3000	1 to 15 inclusive	May 2001
5000	1 to 2 inclusive	May 2003

Chapter IV

Units and Method of Measurement

Series Series 100: Preliminaries

Delete paragraphs 1 to 33 inclusive.

Delete paragraph 34 to 39 inclusive and insert the following paragraphs 34 to 37 inclusive:

Recovery Vehicles

- Units 34 The unit of measurement shall be:
- (i) recovery vehicleday.
- Measurement 35 The measurement of recovery vehicles shall be for each day or part thereof during which the recovery vehicle is provided.
- Recovery vehicles are deemed to be Site based and not subject to a standby facility.
- Itemisation 36 Separate items shall be provided for recovery vehicles in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Each type of recovery vehicle.

Recovery Vehicles 37 The items for recovery vehicles shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

- Item coverage
- (a) equipment including communications equipment and identification sign;
 - (b) all taxes levies licensing certification and other similar requirements for operating on the public road or highway;
 - (c) comprehensive insurance;
 - (d) replacement vehicle including equipment;
 - (e) depreciation;
 - (f) maintenance;
 - (g) fuel, oil and consumables;

- (h) qualified operator and safety officer and provision of documents;
- (i) completion and submission of information log sheets and record sheets;
- (j) vehicle inspections and submission of Certificates;
- (k) dealing with shed loads, broken down, accident damaged or abandoned vehicles and removal;
- (l) explanatory leaflets and distribution;
- (m) liaising with police;
- (n) hardstandings, accommodation and servicing;
- (o) locations and facilities for vehicle removal;
- (p) removal of all plant including Constructional Plant, , equipment, hardstandings, accommodation and locations and facilities for vehicle removal;
- (q) vehicle inspection and report;
- (r) lighting board.

After paragraph 55 insert the following paragraphs 56 to 59 inclusive:

Mobilisation

Units	56	The unit of measurement shall be: <ul style="list-style-type: none"> (i) mobilisationitem.
Measurement	57	<p>The maximum payment that may be made for mobilisation activities during the Mobilisation Period prior to Commencement of Service Date is £750,000 or 50% of the mobilisation value, whichever is lower.</p> <p>Following Commencement of Service Date, the maximum payment per month that may be made for mobilisation activities is 25% of the outstanding mobilisation total at Commencement of Service Date. For example, if £750,000 is unmeasured at Commencement of Service Date the maximum payment per month following Commencement of Service Date would be £750,000 x 25% = £187,500.</p>

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Any mobilisation activity not priced in this subsection will be deemed included in the Item coverage for other Core Operations items.

Itemisation 58 Separate items shall be provided for mobilisation in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Mobilisation.

Mobilisation 59 The item for mobilisation shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

Item coverage Everything associated with mobilisation for the Contract.

Series 200: Site Clearance

After paragraph 1 insert the following paragraph 1A:

Definitions 1A Delete all references to "tip" and replace with "licensed facility".
"licensed facility" means a licensed disposal facility or a licensed recycling facility.

Litter Clearance

After paragraph 11 insert the following paragraphs 12 to 20 inclusive:

Definitions 12 Grades are those referred to in Code of Practice on Litter and Refuse (Scotland) 2018.

Units 13 The units of measurement shall be:
(i) litter clearance kilometre.

Measurement 14 Litter clearance shall only be measured where Transport Scotland requires the Operating Company to carry out litter clearance on roads which are normally the responsibility of local authorities.

Measurement shall be the linear length of associated highway from verge to boundary irrespective of the width of clearance.

Itemisation 15 Separate items shall be provided for keeping land clear of litter and refuse in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Litter clearance from highway verge.
II	1 Improve from Grade E classification to Grade B classification.

Litter clearance 16 The items for litter clearance shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

Item coverage (a) picking up litter;
(b) placing in sacks;
(c) disposal of material (as Series 600 paragraph 39).

Sweeping of Carriageway

Units	17	The units of measurement shall be: (i) Sweeping edge of carriageway or hard shoulder kilometre.				
Measurement	18	Sweeping of carriageway shall only be measured where Transport Scotland requires the Operating Company to sweep roads which are normally the responsibility of Local Authorities. Measurement shall be the linear length of associated highway.				
Itemisation	19	Separate items shall be provided for sweeping edge of carriageway or hard shoulder in accordance with Chapter II paragraphs 3 and 4 and the following: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Group</th> <th style="text-align: left;">Feature</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">I</td> <td>1 Sweeping edge of carriageway or hard shoulder.</td> </tr> </tbody> </table>	Group	Feature	I	1 Sweeping edge of carriageway or hard shoulder.
Group	Feature					
I	1 Sweeping edge of carriageway or hard shoulder.					
Sweeping of carriageway	20	The items for sweeping shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:				
Item coverage		(a) hand or mechanical sweeping; (b) water supply; (c) removal of sweepings; (d) disposal of material (as Series 600 paragraph 39).				

Series 300: Fencing

Fencing, Gates and Stiles

Delete paragraphs 1, 2 and 3 and insert the following paragraphs 1 to 3 inclusive:

- | Units | 1 | The units of measurement shall be:

(i) fencing..... linear metre, | | | | | | | | | |
|---|---|--|-------|--|---------|---|---|-----------------------|--|---|-------------------------------|
| Measurement | 2 | Temporary fencing shall not be measured.

The measurement of permanent fencing shall be the developed length along the centre-line of the fence. The measurement of height of fencing shall be that stated in this Contract for the type of fence. | | | | | | | | | |
| Itemisation | 3 | Separate items shall be provided for permanent fencing in accordance with Chapter II paragraphs 3 and 4 and the following: | | | | | | | | | |
| <table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 10%; border-bottom: 1px solid black;">Group</th> <th style="text-align: left; width: 10%; border-bottom: 1px solid black;"></th> <th style="text-align: left; border-bottom: 1px solid black;">Feature</th> </tr> </thead> <tbody> <tr> <td style="border-bottom: 1px solid black;">I</td> <td style="border-bottom: 1px solid black; text-align: center;">1</td> <td style="border-bottom: 1px solid black;">Each type of fencing.</td> </tr> <tr> <td style="border-bottom: 1px solid black;"></td> <td style="border-bottom: 1px solid black; text-align: center;">1</td> <td style="border-bottom: 1px solid black;">Fencing of different heights.</td> </tr> </tbody> </table> | | | Group | | Feature | I | 1 | Each type of fencing. | | 1 | Fencing of different heights. |
| Group | | Feature | | | | | | | | | |
| I | 1 | Each type of fencing. | | | | | | | | | |
| | 1 | Fencing of different heights. | | | | | | | | | |
| Fencing | 4 | In paragraph 4 insert after (x) the following (y): | | | | | | | | | |
| Item coverage | | (y) removal of debris and other similar material on the line of the fencing. | | | | | | | | | |

Series 400: Road Restraint Systems (Vehicle & Pedestrian)

Safety Barriers and Transitions

Itemisation 4 In paragraph 4 delete Group V.

In paragraph 4 delete Group III and replace with the following Group III:

Group	Feature
III	1 Each working width class or range of working width classes.

Safety Barriers and Transitions 5 In paragraph 5 delete (a), (f) and (h) and insert the following (a) and (f):

Item coverage (a) Design of the road restraint system, fabrication, installation, construction and testing;

(f) amendments to the Unit.

Terminals

Itemisation 8 In paragraph 8 delete Groups I to IV and insert the following Groups I to III:

Group	Feature
I	1 Terminal.
II	1 Each performance class.
III	1 Designed to be impacted on one side only.

Temporary Safety Barriers

After paragraph 47 insert the following paragraphs 48 to 51 inclusive:

Units	48	The units of measurement shall be: (i) temporary safety barrier metre.												
Measurement	49	The measurement of temporary safety barrier shall be the developed length along the centre-line of the temporary safety barrier including terminal sections. Temporary safety barrier shall only be measured where the temporary safety barrier is acting as a permanent parapet. All other temporary safety barrier shall not be measured.												
Itemisation	50	Separate items shall be provided for temporary safety barriers in accordance with Chapter II paragraphs 3 and 4 and the following:												
<table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 10%; padding: 5px;">Group</th> <th style="text-align: left; width: 5%; padding: 5px;"></th> <th style="text-align: left; width: 85%; padding: 5px;">Feature</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">I</td> <td style="text-align: center; padding: 5px;">1</td> <td style="padding: 5px;">Temporary safety barrier.</td> </tr> <tr> <td style="padding: 5px;">II</td> <td style="text-align: center; padding: 5px;">1</td> <td style="padding: 5px;">Each containment performance class.</td> </tr> <tr> <td style="padding: 5px;">III</td> <td style="text-align: center; padding: 5px;">1</td> <td style="padding: 5px;">Each working width class or range of working width classes.</td> </tr> </tbody> </table>			Group		Feature	I	1	Temporary safety barrier.	II	1	Each containment performance class.	III	1	Each working width class or range of working width classes.
Group		Feature												
I	1	Temporary safety barrier.												
II	1	Each containment performance class.												
III	1	Each working width class or range of working width classes.												
Temporary Safety Barriers	51	The items for temporary safety barriers shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:												
Item coverage		(a) safety barriers and transitions (as this Series paragraph 5); (b) terminals (as this Series paragraph 9); (c) dismantling, loading, transporting removal and unloading; (d) maintenance, which includes for all time-related costs associated with keeping the temporary safety barrier in both condition and position.												

capping is provided above subgrade level. Where the filter material is covered with red chippings the top surface of the excavate and replace filter material shall be the underside of the red chippings.

In paragraph 24 after (d) insert the following (e) and (f):

Excavate and Replace Filter Material

Item coverage

- 24 The items for excavate and replace filter material shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
- (e) cleaning and replacing excavated filter material;
 - (f) new and recycled filter material.

Renewal, Raising or Lowering of Covers and Gratings on Existing Chambers and Gullies

Itemisation

- 63 In paragraph 63 delete Groups and Features and insert the following Groups and Feature:

Group	Feature
I	1 Renewal.
	2 Raising or lowering the level.
II	1 Area not exceeding 0.30 square metres.
III	1 Not exceeding 150 mm.

Renewal, Raising or Lowering of Covers and Gratings on Existing Chambers and Gullies

Item coverage

- 64 In paragraph 64 after (t) insert the following (u):
- (u) paving material infilling around covers.

Closed Circuit Television Drain Surveys

After paragraph 84 insert the following paragraphs 85 to 88 inclusive:

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- Units 85 The units of measurement shall be:
- (i) closed circuit television drain survey..... linear metre.
- Measurement 86 The measurement of drain survey by closed circuit television camera shall be the length measured along the centre-lines of the pipes between any of the following:
- (a) the external faces of chambers, gullies or headwalls;
- (b) the intersection of the centre-lines at pipe junctions;
- (c) the position of any known terminations.
- Itemisation 87 Separate items shall be provided for closed circuit television surveys in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Closed circuit television drain survey.

**Closed Circuit
Television Drain
Surveys**

Item coverage

- 88 The items for closed circuit television drain surveys shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
- (a) locating chambers, pump chambers, balancing ponds, penstocks, flap valves, headwalls, outfalls, and the like;
- (b) removing and reinstalling covers and gratings;
- (c) moving and setting up closed circuit television camera equipment;
- (d) inserting equipment into drains;
- (e) water supply;
- (f) recording;
- (g) identification of locations recorded;
- (h) picture quality tests and linear measurement checks;
- (i) reporting;
- (j) setting up and removing closed circuit television equipment.

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- (h) trimming the bottom and sides of foundations;
- (i) grading beds and trimming sides of watercourses and the like;
- (j) protection of subgrade;
- (k) additional excavation the Operating Company may require for working space, timbering, formwork or other temporary works and its subsequent backfilling with approved materials and compaction;
- (l) taking precautions to avoid damage to property, Structures, drains, services, instrumentation and the like;
- (m) treatment of faces of cuttings which are not to receive topsoil;
- (n) loading into transport;
- (o) multiple handling of material;
- (p) disposal of surcharge material (as this Series paragraph 39) where occasioned by the Operating Company's method of working;
- (q) disposal of surcharge material rendered unacceptable (as this Series paragraph 39);
- (r) waiting for frozen material to thaw;
- (s) haulage, deposition and compaction in temporary stockpiles including provision of locations for stockpiles;
- (t) replacing acceptable material rendered unacceptable;
- (u) breaking down material necessary to comply with the requirements of fill;
- (v) complying with Special Requirements for Class 3 material and other materials requiring special treatments;
- (w) completion of formation and sub-formation (as this Series paragraph 85);
- (x) disposal of material (as this Series paragraph 39).

Delete paragraph 19 and insert the following paragraph 19:

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Excavation and Disposal of Unacceptable Material 19 The items for excavation and disposal of unacceptable material shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

- Item coverage
- (a) excavation (as this Series paragraph 18);
 - (b) special measures for dealing with Classes U1B and U2 material;
 - (c) completion of formation and sub-formation (as this Series paragraph 85);
 - (d) disposal of material (as this Series paragraph 39).

Excavation in Hard Material

Itemisation 22 In paragraph 22 delete Group II and insert the following Group II:

Group	Feature
II	1 In all locations.

Imported Fill

Itemisation 44 In paragraph 44 delete Group II and insert the following Group II:

Group	Feature
II	1 In all locations.

Imported Fill 45 In paragraph 45 insert the following after (n):

- Item coverage
- (o) Compaction of fill (as this Series paragraph 52);

Trial Pits

Itemisation 168 In paragraph 168 delete Group II and insert the following Group II:

Group	Feature
II	1 0 metres to 1.5 metres in depth.

After paragraph 177 insert the following paragraphs 178 to 181

inclusive:

Siding out of Carriageways, Footways and Paved Areas

Units	178	The units of measurement shall be: (i) siding out of carriageways, footways and paved areas linear metre.
Measurement	179	The measurement of siding out of carriageways, footways and paved areas shall be the length along the cut edge. No deduction shall be made for gaps within the length of 2 metres or less.
Itemisation	180	Separate items shall be provided for siding out of carriageways, footways and paved areas in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Siding out of carriageways footways and paved areas.

Siding out of Carriageways, Footways and Paved Areas	181	The items for siding out of carriageways, footways and paved areas shall in accordance with the Preamble to Schedule of Rates and Prices General Directions include for:
---	-----	--

- | | |
|---------------|--|
| Item coverage | <ul style="list-style-type: none"> (a) programming the work in advance of any other operation at the Site; (b) breaking up and removal of hardened dirt areas; (c) prevention of damage to existing carriageways, footways and paved areas; (d) disposal of material by spreading and levelling on verge or disposal of material (as Series 600 paragraph 39); (e) trimming of edges to a neat line; (f) leaving carriageway, footway and verge clear of debris. |
|---------------|--|

Series 700: Pavements

Sub-base

Itemisation 4 In paragraph 4 delete Group II.

Pavement

Delete paragraph 7 and insert the following paragraphs 7A to 7F:

Measurement 7A The measurement of base, lower base, upper base, binder course, surface course concrete slab, adjustment for each 5mm variation above or below the stated thickness, adjustment for alternative PSV and adjustment for alternative AAV on surface course shall be calculated using the width of the top surface of the course or slab. No deductions shall be made for openings of 1 square metre or less.

7B When base course is 150mm or less total thickness it shall be measured as a single layer of base course 100mm thick with +/- adjustments for each 5mm thickness difference where applicable.

Example 1: where base course of 105mm overall thickness is laid over a plan area of 400m², it shall be measured as follows:

- (i) Base Ba, Bb 100mm thick exceeding 70m² not exceeding 700m²: Quantity measured = 400m².
- (ii) Adjustment on base Ba, Bb 100mm thick item for each 5mm variation above or below the stated thickness:
Quantity measured = 400m² (one number positive adjustment).

Example 2: where base course of 95mm overall thickness is laid over a plan area of 400m², it shall be measured as follows:

- (i) Base Ba, Bb 100mm thick exceeding 70m² not exceeding 700m²: Quantity measured = 400m².
- (ii) Adjustment on base Ba, Bb 100mm thick item for each 5mm variation above or below the stated thickness:
Quantity measured = -400m² (minus 400m², i.e. one number negative adjustment).

7C When base course is greater than 150mm but not exceeding 250mm total thickness it shall be measured as two layers of base course with +/- adjustments for each 5mm thickness difference where applicable; the applicable base course item will be that represented by the summated quantities.

Example 1: where base course of 210mm overall thickness is laid over a plan area of 400m², it shall be measured as follows:

- (i) Base Ba, Bb 100mm thick exceeding 700m²: Quantity measured = (400m² + 400m²) = 800m².
- (ii) Adjustment on base Ba, Bb 100mm thick item for each 5mm variation above or below the stated thickness: Quantity measured = 800m² (two number positive adjustments).

Example 2: where base course of 185mm overall thickness is laid over a plan area of 400m², it shall be measured as follows:

- (i) Base Ba, Bb 100mm thick exceeding 700m²: Quantity measured = (400m² + 400m²) = 800m².
- (ii) Adjustment on base Ba, Bb 100mm thick item for each 5mm variation above or below the stated thickness: Quantity measured = - 1,200m² (minus 1,200m², i.e. three number negative adjustments).

7D When base course is greater than 250mm but not exceeding 350mm total thickness it shall be measured as three layers of base course with +/- adjustments for each 5mm thickness difference where applicable.

7E When binder course is 90mm or less total thickness it shall be measured as a single layer of binder course 60mm thick with +/- adjustments for each 5mm thickness difference where applicable.

7F When binder course is greater than 90mm but not exceeding 150mm total thickness it shall be measured as two layers of binder course with +/- adjustments for each 5mm thickness difference where applicable.

Itemisation

8 Delete paragraph 8 and insert the following paragraph 8:

**SCOTTISH TRUNK ROAD NETWORK MANAGEMENT CONTRACT
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Group	Feature
I	1 Base. 2 Binder course. 3 Surface course. 4 Adjustment for different thicknesses. 5 Adjustment for different PSV on surface course.
II	1 Each group or type.
III	1 Different thicknesses.

**Base, Binder
Course, Surface
Course,
Adjustment for
different
thicknesses and
PSV**

9 In paragraph 9 delete (aa) and insert the following (aa):

Item coverage

(aa) slurry sealing, surface dressing, bituminous spray, resin based treatment, tack coat and bond coat (as this Series paragraph 24);

Hand laid Mastic Asphalt on Forth Road Bridge

After paragraph 9 insert the following paragraphs 9A to 9C inclusive:

Units

9A The units of measurement shall be:

(i) hand laid mastic asphalt surface course on Forth Road Bridge.....square metre.

Itemisation

9B Separate items shall be provided for hand laid mastic asphalt on Forth Road Bridge to surface course in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
-------	---------

I	1	Hand laid mastic asphalt surface course with 14mm coated chippings on Forth Road Bridge carriageway
	2	different thicknesses

Hand laid Mastic Asphalt on Forth Road Bridge

Item Coverage

9C

The items for hand laid mastic asphalt on Forth Road Bridge shall in accordance with Preambles to Schedule of Rates and Prices General Directions include for:

- (a) trial areas and trials,
- (b) making good after sampling and testing,
- (c) protection of material in transit and while awaiting tipping,
- (d) designing and verifying mixes,
- (e) grading, measuring, reclaiming, mixing and depositing materials,
- (f) spreading and compaction,
- (g) cutting back, saw cutting, cleaning, preparing and working on or up to existing surfaces and features,
- (h) edge support,
- (i) waterproof and separation membranes,
- (j) surface texturing,
- (k) making joints,
- (l) forming or sawing grooves, cleaning, grit blasting, priming, caulking, temporary and permanent sealing of joints,
- (m) hand spreading,
- (n) shaping to cambers, falls and crowns,
- (o) forming sockets, recesses, openings, and bays,
- (p) curing and protection,
- (q) protection and masking and unmasking of kerbs, drainage channels, chamber covers, gully gratings, expansion joints, and the like,
- (r) maintenance of surface,
- (s) taking measures to protect and maintain the pavement from deterioration by the use of constructional plant and the ingress of water and other materials,
- (t) melding the mastic asphalt into any existing surfacing material on top of the waterproofing,

- (u) measures required for aftercare and opening the road to traffic,
- (v) slurry sealing, surface dressing, bituminous spray, resin based treatment and tack coat forming integral part of the pavement,
- (w) admixtures and additives.

Surface Treatment

Itemisation 18 Delete paragraph 18 and insert the following paragraph 18:

Group	Feature
I	1 Surface dressing.
	2 High friction surfacing, any colour.

Tack Coat

Delete paragraph 22 and insert the following paragraph 22:

Measurement 22 Tack coat shall not be separately measured and is included in the Item coverage for this Series 700 paragraph 9.

Cold Milling (Planing)

After paragraph 26 insert the following paragraphs 26A and 26B:

Measurement 26A Disposal of hazardous (U2) material will be measured using the item 690001001 for invoiced costs of accounts.

26B Pavement material removed by any means other than milling shall nevertheless be measured as “milling”. The depth of milling measured shall be the average depth of material removed.

Milling 28 In paragraph 28 delete (e) and insert the following (e):

Item coverage (e) disposal of non-hazardous material (as Series 600 paragraph 39);

Repairs and Patching

Delete paragraphs 77 to 81 and insert the following paragraphs 77 to 82 inclusive:

Definition	77	Temporary repair to a carriageway pavement Category 1 Defect means carrying out all necessary immediate make safe actions and temporary repair Operations to remove the Category 1 Defect pending permanent repair.
	77A	Permanent repair shall be the replacement of surfacing and binder materials in any number of individual areas not exceeding 10 square metres by hand patching.
Units	78	The units of measurement shall be : (i) temporary repair to carriageway pavement Category 1 Defect..... number. (ii) repairs and patching to carriageways square metre.
Measurement	79	Where a temporary repair to a carriageway pavement Category 1 Defect is carried out the temporary repair may be separately measured. The temporary repair of carriageway pavement Category 1 Defect shall not be measured more than once per carriageway pavement Defect.
	79A	For permanent repairs, adjustments for different thicknesses of repairs and patching and different PSV values will be measured using adjustment items in Subseries 070002 for the corresponding material types.
	80	For permanent repairs, pavement material removed by any means other than milling shall nevertheless be measured as “milling” using items in Subseries 070005 in accordance with the paragraphs 25 to 28 inclusive of this Series 700. The depth of milling measured shall be the average depth of material removed.
Itemisation	81	Separate items shall be provided for repairs and patching in accordance with Chapter II paragraphs 3 and 4 and the following:

**SCOTTISH TRUNK ROAD NETWORK MANAGEMENT CONTRACT
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Group	Feature
I	1 Temporary repair to carriageway Category 1 Defect 2 Repairs and patching in surface course. 3 Repairs and patching in binder course.
II	1 Each Group or Type. 2 Different thicknesses.

Note: Group II shall not apply to Group I Feature 1.

Temporary Repairs of Carriageway Category 1 Defects

81A

The items for temporary repair to Carriageway Category 1 Defects shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

Item coverage

- (a) making the Defect safe, including erection and maintaining warning signs, removal of any hazard or by taking any other measures necessary to protect the public and other users of the Unit;
- (b) removing all debris, loose material, water and road studs;
- (c) drying;
- (d) reinstatement with selected temporary repair material and compaction;
- (e) shaping to cambers, falls and crowns;
- (f) tack coat and bond coat (as this series paragraph 24);
- (g) disposal of material (as series 600 paragraph 39);
- (h) all of the above if the temporary repair fails before the permanent repair is completed.

Repairs and Patching

82

The items for repairs and patching shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

Item coverage

- (a) Binder course, surface course (as this Series 700 paragraph 9).

Ex-situ recycling

After paragraph 82 insert the following paragraphs 83 to 86 inclusive:

- Definition 83 Ex-situ recycling includes foamed bitumen process which may be used to recycle bituminous mixtures containing coal tar
- Units 84 The units of measurement shall be:
(i) ex-situ recycling..... square metre.
- Itemisation 85 Separate items shall be provided for ex-situ recycling in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Ex-situ recycling.
II	1 Different thicknesses.

- Ex-situ recycling** 86 The items for ex-situ recycling shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
- Item coverage (a) milling (as this Series paragraph 28);
(b) heating and scarifying;
(c) base, lower base, upper base, binder course, surface course and concrete slab (as this Series paragraph 9);
(d) make up to low areas and reprofiling;
(e) removal of surface dressing;
(f) removal of road markings;
(g) transportation of material for recycling and recycled material to and from recycling plant;
(h) special measures to deal with hazardous material;
(i) reports.

Grip Testing

After paragraph 86 insert the following paragraphs 87 to 90 inclusive.

- Units 87 The units of measurement shall be:

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(i) grip testing..... km.

Measurement 88 Each carriageway Lane tested shall be separately measured. The measurement shall be computed net to the nearest whole number.

Itemisation 89 Separate items shall be provided for grip testing in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Grip testing.

Grip Testing 90 The items for grip testing shall in accordance with Preambles to Schedule of Rates and Prices General Directions include for:

- Item coverage
- (a) calibration checks;
 - (b) pre-survey;
 - (c) testing each section twice where required;
 - (d) multiple and repeat testing;
 - (e) recording of GPS data;
 - (f) reporting.

Series 1100: Kerbs, Footways and Paved Areas

Kerbs, Channels, Edgings, Combined Kerbs and Channels, Combined Drainage and Kerb Blocks, and Linear Drainage Channel Systems

Itemisation 3 In paragraph 3 delete Group III.

Footways and Paved Areas

Delete paragraphs 13 to 20 and insert the following paragraphs 13 to 16:

Units 13 The units of measurement shall be:

(i) footway type square metre.

Measurement 14 The measurement of footways and paved areas shall be the area of the top surface of the layer.

15 No deduction shall be made for openings of 1 square metre or less.

Itemisation 16 Separate items shall be provided for footways and paved areas in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Different types.

Cold Milling (Planing)

After paragraph 33 insert the following paragraphs 34 to 38 inclusive:

Units 34 The unit of measurement shall be:

(i) milling..... square metre.

Measurement 35 Measurement of cold milling (planing) shall be as Series 700 paragraph 26.

36 Pavement material removed by any means other than milling shall nevertheless be measured as “milling” using items in this Series 1100. The depth of milling measured shall be the average depth of material removed.

**SCOTTISH TRUNK ROAD NETWORK MANAGEMENT CONTRACT
SOUTH EAST UNIT**

Itemisation 37 Separate items shall be provided for milling of footways and paved areas in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Milling of footway and paved area depth not exceeding 100mm

Milling 38 The items for milling shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

Item coverage (a) milling as Series 700 paragraph 28.

Series 1200: Traffic Signs and Road Markings

Above paragraph 1 delete the heading "Traffic Signs" and replace with:

Traffic Sign Faces

Delete paragraphs 1 to 5 and insert the following paragraphs 1 to 4 inclusive:

- | | | |
|-------------|---|---|
| Units | 1 | The unit of measurement shall be:

(i) traffic sign faces..... square metre. |
| Measurement | 2 | The measurement of traffic sign faces shall be the surface area of the sign.

Temporary traffic sign faces shall not be measured. |
| Itemisation | 3 | Separate items shall be provided for traffic signs faces in accordance with Chapter II paragraphs 3 and 4 and the following: |

Group	Feature
I	1 Permanent Microprismatic traffic sign faces.
	1 Sign face sized between 0 – 2.50 square metres in area.
	2 Sign face sized between 2.50 – 5.00 square metres in area.
	3 Sign face exceeding 5.0 square metres in area.

- | | | |
|---------------------------|---|---|
| Traffic Sign Faces | 4 | The items for traffic sign faces shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for: |
| Item coverage | | (a) covering and removal of coverings of signs;
(b) location lettering and marking;
(c) drilling or forming holes and pockets in Structures or lighting columns and casting in bolts, sockets and anchorage assemblies;
(d) sign plates;
(e) rivets, bolts nuts and other fastenings; |

- (f) purlins and fixings;
- (g) protective treatment;
- (h) notices and recording;
- (i) preparation and supply of record drawings;
- (j) fixing to Structures including attachment systems and additional materials for hinges;
- (k) dew resistant sheeting.

After paragraph 4 insert the following paragraphs 5 to 5D inclusive:

Traffic Sign Posts

Definitions 5 'Passively safe traffic sign posts' refers to posts compliant with BS EN 12767.

Units 5A The unit of measurement shall be:
(i) passively safe traffic sign posts.....linear metre.

Measurement 5B The measurement of passively safe traffic sign posts shall be the complete installation.

'Cross-sectional area' shall be measured as follows:

1 For triangular and quadrilateral profiles the cross-sectional area shall be the external area of the triangle or quadrilateral.

2 For all other profiles the cross-sectional area will be the minimum area of a quadrilateral that the profile may be contained within.

Temporary traffic sign posts shall not be measured.

Itemisation 5C Separate items shall be provided for traffic signs faces in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Passively safe traffic sign posts.
	2 Tubular steel traffic sign posts.
II	1 Circular.

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	2	Other profile.
III	1	Planted.
	2	Flanged base.
IV	1	Diameter.
V	1	Cross-sectional area not exceeding 0.05 square metres.
	2	Cross-sectional area exceeding 0.05 but not exceeding 0.10 square metres.
	3	Cross-sectional area exceeding 0.10 square metres but not exceeding 0.15 square metres.

Note 1: Group IV shall only apply to Group II feature 1.

Traffic Sign Posts 5D

The items for traffic sign posts shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

Item coverage

- (a) location lettering and marking;
- (b) electrical equipment, wiring, and connections, excluding supply and control cable;
- (c) conduit including screwed and threaded connections, bends, tees and other similar features, draw wires;
- (d) backboard, fixing, protective caps, sealing, grommets, spacers, mounting plates and strips;
- (e) doors, locks and keys;
- (f) drilling or forming holes and pockets in Structures or foundations;
- (g) base plates, bolts, sockets and anchorage assemblies;
- (h) top plates and caps;
- (i) aligning, fixing and casting into foundations;
- (j) cutting post to length;
- (k) bedding and grouting;
- (l) protective system (as Series 1900 paragraph 4);

- (m) identification numbers;
- (n) threading cable through ducts sleeves and conduits;
- (o) complying with wiring regulations, earthing (other than earth electrodes);
- (p) protective treatment;
- (q) notices and recording;
- (r) preparation and supply of record drawings.

After paragraph 5D above insert the following paragraphs 5E to 5H:

Concrete Traffic Sign Bases

Units	5E	The unit of measurement shall be: (i) traffic sign basescubic metre.				
Measurement	5F	The measurement of traffic sign bases shall be the complete installation. Traffic sign bases shall be measured to the nearest 0.1 cubic metres.				
Itemisation	5G	Separate items shall be provided for traffic sign bases in accordance with Chapter II paragraphs 3 and 4 and the following:				
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Group</th> <th style="width: 85%;">Feature</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">I</td> <td>1 Concrete traffic sign bases.</td> </tr> </tbody> </table>			Group	Feature	I	1 Concrete traffic sign bases.
Group	Feature					
I	1 Concrete traffic sign bases.					
Concrete Traffic Sign Bases	5H	The items for traffic sign bases shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:				
Item coverage		<ul style="list-style-type: none"> (a) excavation and disposal of any material (as Series 600 paragraphs 18, 19 and 23 and 39); (b) backfilling and compaction; (c) in-situ concrete (as Series 1700 paragraph 5); (d) formwork (as Series 1700 paragraph 15); (e) reinforcement (as Series 1700 paragraph 26); 				

- (f) ducts, sleeves, sockets and anchorages in bases;
- (g) reinstatement of surfaces;
- (h) preparation and supply of record drawings.

After paragraph 5H insert the following paragraphs 5I to 5L:

LED Components for Traffic Sign Lighting

Units	5I	<p>The unit of measurement shall be:</p> <ul style="list-style-type: none"> (i) invoiced costs of LED components, including LED luminaires and LED array..... sum.
Measurement	5J	<p>The measurement of invoiced costs of LED components shall be the cost of the supply, storage and delivery of LED components.</p> <p>A percentage adjustment to the invoiced cost of LED components shall also be measured and the applicable adjustment item shall be deemed to be Item 650003002 Percentage adjustment to be applied to the Basic cost of materials in accordance with Section 2 – Materials of Schedule of Dayworks Carried Out Incidental to Contract Work.</p> <p>The percentage adjustment shall include for:</p> <ul style="list-style-type: none"> (a) ordering and taking delivery; (b) unloading, storing and protecting; (c) double handling; (d) wastage; (e) discounts; (f) establishment charges; (g) delivery within or related to the unit; (h) all other charges and costs overheads and profit not recovered in LED components for traffic sign lighting.
Itemisation	5K	<p>Separate items shall be provided for LED components for traffic sign lighting in accordance with Chapter II paragraphs 3 and 4 and the following:</p>

Group	Feature
I	1 LED components for traffic sign lighting.

LED Components for Traffic Sign Lighting 5L The items for LED components for traffic sign lighting shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

Item coverage (a) all costs of components delivered to the Unit.

After paragraph 5L insert the following paragraphs 5M to 5P:

Replace Traffic Sign Lighting

Units 5M The unit of measurement shall be:

(i) replace existing luminaire to traffic sign with LED luminaire excluding the invoiced costs of LED components, replace 8w lighting in sign lighting units, replace 11w lighting in bollards number.

Measurement 5N The measurement of replace existing luminaire to traffic sign with LED luminaire shall exclude the cost of new LED components which are separately measured.

The measurement of replace traffic sign lighting shall be the complete installation except for earth electrodes which shall be measured separately under Series 1400 (paragraphs 24 to 27).

Itemisation 5O Separate items shall be provided for replace traffic sign lighting in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Replace existing luminaire to traffic sign with LED luminaire.
	2 Replace 8w lighting in sign lighting units at any height.
	3 Replace 11w lighting in illuminated bollard.

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**Replace Traffic
Sign Lighting**

5P

The items for replace traffic sign lighting shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

Item coverage

- (a) electrical equipment, wiring, and connections, excluding supply and control cable;
- (b) conduit including screwed and threaded connections, bends, tees and other similar features, draw wires;
- (c) threading cable through ducts, sleeves and conduits;;
- (d) complying with wiring regulations, earthing (other than earth electrodes), and inspection;
- (e) earth block and earthing of sign post and equipment;
- (f) light spill screens;
- (g) sign bracket arms;
- (h) earthing of sign post and equipment;
- (i) fixtures and fittings;
- (j) protective system (as Series 1900 paragraph 4);
- (k) threading cable through ducts sleeves, conduit and the like;
- (l) storage and handling of materials;
- (m) disposal of materials (as Series 600 paragraph 39)

Road Markings

Delete paragraph 9 and insert the following paragraph 9:

Units

9

The unit of measurement shall be:

- (i) marking of solid areassquare metre,
- (ii) marking of lines.....linear metre,
- (iii) marking of triangles, circles, circles with enclosing arrows, arrows, kerb markings, symbols, nodes, letters and numeralsnumber,

(iv) removal of solid areas, lines, triangles, circles, circles with enclosing arrows, arrows, kerb markings, symbols, letters and numerals square metre.

Measurement 11

Delete paragraph 11 and insert the following paragraph 11:

Road markings shall be measured as lines and shall be grouped together according to width.

In the case of intermittent lines the measurement shall be of the marks only. Double lines shall be measured as two single lines.

Diagonal lines between double lines and short transverse lines at the ends of any longitudinal lines shall be measured with the lines of which they form part.

Ancillary lines shall include lines forming hatched areas, chevrons, zigzag lines, boxed areas and lines enclosing boxed areas. In the case of hatched areas and chevrons the enclosing lines shall be measured as the longitudinal line of which they form part. The measurement of zigzag lines shall include any transverse or longitudinal lines at their ends.

Delete paragraph 16 and insert the following paragraph 16:

Itemisation

16

Separate items shall be provided for marking and removal of road markings in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Removal of road markings.
	2 Road markings.
II	1 Solid areas.
	2 Continuous lines.
	3 Intermittent lines.
	4 Ancillary lines.
	5 Raised rib lines.
	6 Triangles.
	7 Arrows.

	8	Letters and numerals.
III	1	Different materials.
IV	1	Different widths of lines.
	2	Different lengths of arrows.
	3	Different heights of letters and numerals.
V	1	Different diagram numbers for arrows.
VI	1	Screed.
	2	Screed or Spray.
	3	Extrusion.
VII	1	Any line, solid area symbol or letter excluding raised rib lines.
	2	Raised rib lines.

Note 1: Group II to VI shall only apply to Group I feature 2.

Note 2: Group VII shall only apply to Group I feature 1.

Road Studs

In paragraph 22 after (e) insert the following (f) and (g):

Road Studs	22	The items for road studs shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
Item coverage	(f)	surface preparation;
	(g)	cleaning out existing sockets.

Permanent Bollards

Delete paragraph 42 and insert the following paragraph 42:

Permanent Bollards	42	The items for permanent bollards shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
Item coverage	(a)	traffic signs faces (as this Series paragraph 4);
	(b)	traffic sign posts (as this Series paragraph 5D);

- (c) traffic sign bases (as this Series paragraph 5H);
- (d) preservation treatment of timber.

Chevrons

After paragraph 45 insert the following paragraphs 46 to 49 inclusive:

- Units 46 The unit of measurement shall be:
 - (i) flexible chevrons linear metre.
- Measurement 47 Measurement shall be the horizontal length of the complete chevron installation.
- Itemisation 48 Separate items shall be provided for flexible chevrons in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Passively safe RA2 retroreflective rebound chevrons to BS EN 12767.
II	1 Different heights of chevron symbol.

- Chevrons** 49 The items for flexible chevrons shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
 - (a) traffic signs faces (as this Series paragraph 4);
 - (b) traffic sign posts (as this Series paragraph 5D);
 - (c) traffic sign bases (as this Series paragraph 5H).
- Item coverage

Series 1300: Road Lighting Columns, Brackets, CCTV Masts & Cantilever Masts

Road Lighting Columns, Brackets, Wall Mountings, CCTV Masts & Cantilever Masts

Above paragraph 1 insert the following paragraph 0:

Definitions 0 'Passively Safe Lighting Columns' refers to columns compliant with BS EN 12767.

Delete paragraphs 2 and 3, and insert the following paragraphs 2 and 3:

Measurement 2 The measurement of road lighting columns and brackets, wall mountings, CCTV masts and cantilever masts shall be the complete installation except for earth electrodes which shall be measured separately (under Series 1400 paragraphs 24 to 27) and LED components and installation of luminaires which shall be measured separately (under this Series paragraphs 8 to 14).

Itemisation 3 Separate items shall be provided for road lighting columns and brackets, wall mountings, CCTV masts and cantilever masts in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Passively safe road lighting columns.
II	1 Not exceeding 10 metres nominal height. 2 Exceeding 10m but not exceeding 15m nominal height.
III	1 Different types of base.
IV	1 Single bracket.

Road Lighting Columns, Brackets, Wall Mountings, CCTV Masts & Cantilever Masts 4 In paragraph 4 after (ff) insert the following (gg) to (ii) inclusive:

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- Item coverage
- (gg) marking and lettering;
 - (hh) conspicuity banding;
 - (ii) terminations.

After paragraph 7 insert the following paragraphs 8 to 11:

LED Components for Lighting

- Units 8 The units of measurement shall be:
- (i) invoiced costs of LED components, including LED luminaires, LED array, LED DALI compatible and enabled driver, complete with necessary components for integration with L-CMS, sum.
- Measurement 9 The measurement of invoiced costs of LED components shall be the cost of the supply, storage and delivery of LED components.
- A percentage adjustment to the invoiced cost of LED components shall also be measured and the applicable adjustment item shall be deemed to be Item 650003002 Percentage adjustment to be applied to the Basic cost of materials in accordance with Section 2 – Materials of Schedule of Dayworks Carried Out Incidental to Contract Work,
- The percentage adjustment shall include for:
- (a) ordering and taking delivery;
 - (b) unloading, storing and protecting;
 - (c) double handling;
 - (d) waste;
 - (e) discounts;
 - (f) establishment charges;
 - (g) delivery within or related to the unit;
 - (h) all other charges and costs, overheads and profit not recovered in LED components.
- Itemisation 10 Separate items shall be provided for road lighting columns and brackets, wall mountings, CCTV masts and cantilever masts in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 LED components.

LED Components for Lighting 11 The items for LED components, shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

Item coverage (a) all costs of components delivered to the Unit.

After paragraph 11 insert the following paragraphs 12 to 14 inclusive:

Replace Luminaires

Units 12 The unit of measurement shall be:
(i) replace luminaire with L-CMS equipped LED luminaire number.

Itemisation 13 Separate items shall be provided for replace luminaires in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Replace luminaire with L-CMS equipped LED luminaire excluding the invoiced costs of LED components.

Replace Luminaires 14 The items for Replace luminaire with L-CMS equipped LED luminaire shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

Item coverage (a) prepare new LED luminaire and components for L-CMS prior to taking on Site for installation complete with carrying out all appropriate pre-installation tests;
(b) modify power supply arrangement as appropriate including feeder pillar, remove group control contactor, remove associated photo electronic control unit (PECU) and wiring to ensure continuous power supply to the new assets;
(c) lower and raise high mast carriage and similar mechanisms to allow access to luminaires;

- (d) take down existing luminaire from column or high mast and remove to licensed facility (as Series 200 paragraph 11);
- (e) install wiring from lighting unit to existing cut-out, adjust protection devices as necessary;
- (f) add glands, conduit including draw wires, screwed and threaded connections, bends, tees and other features to ensure safe installation;
- (g) thread cable through ducts sleeves, conduit and the like as required;
- (h) add fixings, protective caps, sealings grommets, spacers, mountings, plates and strips;
- (i) terminate new wiring and cables – rearrange as necessary;
- (j) test and commission to confirm functionality of the L-CMS including correct operation of all components within the new assets for the remote monitoring and control functions through to the L-CMS operators access terminal – ensure the identifying codes associated with the new LED luminaires L-CMS are correctly allocated, and that these align with asset location, asset ID through to correct displaying on the operators access terminal and in the Transport Scotland Asset Management Performance System (AMPS);
- (k) carry out multiple visits to installation in relation to any aspect of the replaced luminaire to ensure full integration and operations of new LED luminaire complete with L-CMS;
- (l) protective system (as Series 1900 paragraph 4);
- (m) storage and handling of materials.

After paragraph 14 insert the following paragraphs 15 to 18 inclusive:

Conspicuity Banding to Existing Assets

Units	15	The units of measurement shall be: <ul style="list-style-type: none">(i) conspicuity banding set to existing assetsnumber.
Measurement	16	Where a set of double conspicuity bands is required on an asset, each set will be measured as a single item with a quantity of “1”.

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Conspicuity banding to existing assets shall not be separately measured for road lighting columns measured in accordance with this Series, paragraphs 1 to 4.

Itemisation 17

Separate items shall be provided for conspicuity banding in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Conspicuity banding to existing asset.

**Conspicuity
Banding to
existing assets** 18

The item for conspicuity banding to existing assets shall in accordance with Preambles to Schedule of Rates and Prices General Directions include for:

Item coverage

- (a) preparing surface (as Series 5000 paragraph 5);
- (b) removing old banding;
- (c) making good protective system (as Series 5000 paragraph 6);
- (d) recording.

Series 1400: Electrical Work for Road Lighting and Traffic Signs

Locating Buried Road Lighting and Traffic Signs Cables

Delete paragraphs 1 to 3 and insert the following paragraph 1:

Measurement 1 Locating buried road lighting and traffic signs cables shall not be separately measured.

Trench for Cable or Duct

Delete paragraph 7 and insert the following paragraph 7:

Itemisation 7 Separate items shall be provided for trench for cable or duct in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Trench for cable or duct.
II	1 Not exceeding 500mm wide.
III	1 Trench depth not exceeding 600mm. 2 Trench depth exceeding 600mm not exceeding 900mm.

Cable and Duct

Delete paragraph 12 and insert the following paragraph 12:

Itemisation 12 Separate items shall be provided for cable and duct in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Cable. 2 Duct.
II	1 Different types and sizes of cable. 2 Different types and sizes of duct.

Cable In paragraph 13 delete sub paragraph (g) and insert the following (g):

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Item coverage 13 (g) scheduled and unscheduled joints;
In paragraph 13 after (m) insert the following (n) and (o):
(n) terminations (as this Series paragraph 19);
(o) working in trenches.

Duct In paragraph 15 after (h) insert the following (i):

Item coverage 15 (i) working in trenches.

Cable Joints and Terminations

Delete paragraphs 16 to 18 and insert the following paragraph 16:

Measurement 16 Cable joints and terminations shall not be separately measured.

Permanent Disconnection of Cables

After paragraph 35 add the following paragraphs 36 to 38 inclusive:

Units 36 The unit of measurement shall be:
(i) permanent disconnection of cables number.

Itemisation 37 Separate items shall be provided for cable and duct in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Permanent disconnection of cables.
II	1 Different types.

Permanent Disconnection of Cables 38 The items for permanent disconnection of cables shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
(a) disposal of materials (as Series 600 paragraph 39);
(b) locating, working around and supporting pipes, cables, services, apparatus and other similar feature;
(c) isolating cables at feeder pillar;
(d) disconnecting cables from termination unit and withdrawing of cable from equipment;

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- (e) temporary sealing of cable ends;
- (f) permanent sealing of cable ends;
- (g) cleaning trimming, taping, sealing and capping including clamps;
- (h) complying with wiring regulations;
- (i) reconnect at feeder pillar;
- (j) loading, transporting from store unloading and positioning of materials for erection;
- (k) replacing items damaged during operations;
- (l) providing new Site Records and updating existing Site Records;
- (m) reports;
- (n) reinstatement of surfaces.

Series 1500: Motorway Communications

Locating Buried Communications Cable

Delete paragraphs 1 to 3 and insert the following paragraph 1:

Measurement	1	Locating buried communications cable shall not be separately measured.
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Loop Detector Installations

Delete paragraph 29 and insert the following paragraph 29:

Measurement	29	The measurement of loop detector installations shall be the complete installation from the joint with the feeder cable in the communications cabinet, chamber, box or pit within which the loop installation or feeder cable is terminated.
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Loop Detector Installations	31	In paragraph 31 after (q) insert the following (r):
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Item coverage	(r)	joints or terminations to feeder cable within communications cabinet, chamber, box or pit.
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Series 1700: Structural Concrete

After paragraph 39 insert the following paragraphs 40 to 43 inclusive:

Structural Concrete Repairs

Units	40	<p>The units of measurement shall be:</p> <ul style="list-style-type: none"> (i) structural concrete repairs using flowed concrete cubic metre, (ii) structural concrete repairs using sprayed concrete cubic metre, (iii) structural concrete repairs using proprietary repair mortars litre. 										
Measurement	41	<p>Measurement of structural concrete repairs shall be the volume of the void to be filled with repair mortar resin or concrete.</p> <p>Measurement of flowed concrete and sprayed concrete shall be to the nearest 0.1m³.</p>										
Itemisation	42	<p>Separate items shall be provided for structural concrete repairs in accordance with Chapter II paragraphs 3 and 4 and the following:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 5px;">Group</th> <th style="text-align: left; padding: 5px;">Feature</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">I</td> <td style="padding: 5px;">1 Structural concrete repairs.</td> </tr> <tr> <td style="padding: 5px;">II</td> <td style="padding: 5px;">1 Flowed concrete.</td> </tr> <tr> <td></td> <td style="padding: 5px;">2 Sprayed concrete.</td> </tr> <tr> <td></td> <td style="padding: 5px;">3 Proprietary repair mortars.</td> </tr> </tbody> </table>	Group	Feature	I	1 Structural concrete repairs.	II	1 Flowed concrete.		2 Sprayed concrete.		3 Proprietary repair mortars.
Group	Feature											
I	1 Structural concrete repairs.											
II	1 Flowed concrete.											
	2 Sprayed concrete.											
	3 Proprietary repair mortars.											
Structural Concrete Repairs	43	<p>The items for structural concrete repairs shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:</p>										
Item coverage		<ul style="list-style-type: none"> (a) saw cutting; (b) removal of defective concrete including hydrodemolition as Series 2000 paragraph 17; (c) breaking out of sound concrete; 										

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- (d) disposal of material (as Series 600 paragraph 39);
- (e) surface preparation; mechanical or by hand;
- (f) protective sheeting or shielding against debris and or spray and its removal;
- (g) blast cleaning reinforcement;
- (h) preparation of concrete surfaces to receive concrete repair materials including protecting untreated areas;
- (i) concrete repair materials (as Series 1700 paragraph 5) including sealants, priming and bonding agents;
- (j) finishing;
- (k) formwork;
- (l) mixing, placing in or against any surface, curing and protection of concrete repair materials;
- (m) falls, cambers and shaped profiles;
- (n) procedure trials;
- (o) sample panels;
- (p) masking adjacent areas;
- (q) removal of rust and chloride deposits from reinforcement;
- (r) production tests;
- (s) water supply;
- (t) sacrificial galvanic anodes.

Series 1800: Steelwork for Structures

Butt weld, fillet weld and other Defect repairs to steelwork

After paragraph 22 add the following paragraphs 23 to 56 inclusive:

- | | | |
|-------------|----|---|
| Units | 23 | <p>The units of measurement for butt weld, fillet weld and other defect repairs to steelwork shall be:</p> <p>i) Defect removal placement of new weld (up to and including lengths up to 250mm)..... number ,</p> <p>ii) Defect removal placement of new weld (lengths over 250mm)..... linear metre</p> |
| Measurement | 24 | <p>The measurement of fillet weld and other Defect repairs shall be measured as the nominal lengths including any addition to cater for existing root gaps.</p> <p>Fillet welds: the repair shall be in two parts; removal of defective weld or Defect and placement of new weld. The removal of defective weld or Defect and the placement of weld shall be measured separately and once only.</p> <p>Lengths of Defects and replaced welds shall be measured to the nearest 10mm.</p> |
| Itemisation | 25 | <p>Separate items shall be provided for butt weld, fillet weld and other Defect repairs in accordance with Chapter II paragraphs 3 and 4 and the following:</p> |

Group	Feature
I	1 Defect repair.
II	1 Butt weld.
	2 Fillet weld.
	3 Other defect.
III	1 Defect removal
	2 Placement of weld

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Butt weld, fillet weld and other Defect Repairs to Steelwork	26	<p>The items for Defect repairs shall be in accordance with the Preambles to Schedule of Rates and Prices General Directions include in:</p> <p>(a) gaining access to existing Structure surfaces, working in confined spaces, and including all necessary temporary lighting and ventilation,</p> <p>(b) provision of qualified inspection personnel including the submission of reports,</p> <p>(c) approval of pre-qualified welding procedural trials and welders,</p> <p>(d) approval of pre-qualified welding, flame cutting and grinding procedures,</p> <p>(e) provision of pre-heat and shelters for welding,</p> <p>(f) provision of all plant, equipment and consumables for grinding, welding and inspection,</p> <p>(g) all non-destructive testing including that to existing steelwork to demonstrate removal of Defect, new welds,</p> <p>(h) all measures necessary to protect the existing Structure against damage,</p> <p>(i) the removal of Defect and the placement of weld,</p> <p>(j) reinstatement of corrosion protection (as Series 5000 paragraph 6),</p> <p>(k) dressing existing welds within 100mm of removed or placed weld to blend into repaired area,</p> <p>(l) disposal or storage of removed steelwork (Temporary Attachments).</p> <p>Welding and Flame Cutting Procedure Trials</p>
Item coverage		
Units	27	<p>The unit measurement shall be:</p> <p>(i) procedure trial,..... number.</p>
Measurement	28	<p>The measurement of procedure trials shall be the number of trials Ordered and accepted by the Engineer as giving satisfactory results.</p>

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Itemisation 29 Separate items shall be provided for procedure trials in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature	
I	1	Procedure trial at place of fabrication.
	2	Procedure trial on Site.
II	1	Welding.
	2	Flame cutting.

Procedure trials 30 The items for procedure trials shall in accordance with the shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

- Item coverage
- (a) tensile tests, bend tests, impact tests and macro examination tests,
 - (b) fillet weld fracture tests and macro examination tests,
 - (c) tests to determine the Vickers hardness value,
 - (d) radiographic, ultrasonic and MPI of welds as appropriate,
 - (e) taking measurements and observations and recording and supplying one copy of the record to the Engineer,
 - (f) preparation of existing steel removed from the works for a trial,
 - (g) trials Ordered by the Engineer and not accepted as satisfactory.

Steelwork Inspection on Forth Road Bridge

Units 36 The units of measurement of Steelwork Inspection on Forth Road Bridge shall be:

- i) magnetic particle inspection ...linear metre,
- ii) ultrasonic inspectionlinear metre,

Measurement 37 Measurement of steelwork inspection shall be for the inspection of the deck plate, deck plate welds and deck to trough welds on Forth Road Bridge by appropriately qualified and experienced persons.

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Itemisation 38 Separate items shall be provided for steelwork inspection on Forth Road Bridge in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 magnetic particle inspection.
	2 ultrasonic inspection
II	1 steel deck plate
	2 butt or fillet weld

Steelwork Inspection on Forth Road Bridge 39 The items for steelwork inspection on Forth Road Bridge shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

- Item coverage
- (a) Undertaking the inspections using suitably qualified and experienced persons;
 - (b) The use of properly calibrated and certified equipment;
 - (c) Proposing and agreeing with the Overseeing Organisation a suitable method of locating and recording dDefects found;
 - (d) Marking out Defects;
 - (e) Reporting of results of inspection to the Overseeing Organisation.

Edge Trimmer Repair and Replacement

Definitions 40 Edge trimmers repairs are where parts of the existing edge trimmer are removed and new sections of edge trimmer are inserted. If more than three metres of any one edge trimmer require replacement then it shall be measured under edge trimmer replacement.

Edge trimmer replacement is where an entire existing edge trimmer is removed and a new trimmer is erected in its place.

Edge trimmer stiffener repairs are stiffeners inserted onto an existing edge trimmer and include replacement of existing stiffeners.

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Units 41 The units of measurement of Edge Trimmer Repair and Replacement shall be:

- i) edge trimmer stiffener repairs.....number,
- ii) edge trimmers repairs...linear metre,
- iii) edge trimmer replacementnumber.

Measurement 42 Edge trimmer replacement shall be measured as the number of edge trimmers replaced, measured only once.

Edge trimmer repairs shall be measured as the number of linear metres of edge trimmer replaced rounded up to the nearest metre, measured once only.

Edge trimmer stiffener repairs shall be the number of edge trimmer stiffeners repaired or replaced.

Itemisation 43 Separate items shall be provided for Edge Trimmer Repair and Replacement in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Edge trimmer repair.
	2 Edge trimmer replacement.
	3 Edge trimmer stiffener repair

Edge Trimmer Repair and Replacement 44 The items for Edge Trimmer Repair and Replacement shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

Item coverage

- (a) fabrication (as this series, paragraph 6),
- (b) erection (as this series, paragraph 9),
- (c) breaking out existing bituminous and concrete materials,
- (d) removal of existing edge trimmers or lengths of edge trimmers and preparing existing surfaces to receive new edge trimmers or new lengths of edge trimmers,

- (e) on site bending and/or welding edge trimmers to suit the profile of the deck,
- (f) non-destructive testing of welds (g) application trials to demonstrate repair methods including further application when trials not carried out successfully,
- (h) inspections of infill material and repairs of same until adjacent permanent works complete,
- (i) phasing of edge trimmer work with other work,
- (j) traffic management,
- (k) all access required,
- (l) disposal of material,
- (m) protective coating as series 1900 Paragraph 4,
- (n) surface preparation and protective coating as Series 5000 paragraph 6.

Replacement of King Post on Forth Road Bridge

Units	45	The units of measurement shall be: i) replacement of king postnumber.
Measurement	46	Measurement of replacement of king post on Forth Road Bridge shall be the replacement of the complete unit.
Itemisation	47	Separate items shall be provided for replacement of king post on Forth Road Bridge in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Replacement of king post.

Replacement of King Post	48	The items for replacement of king post on Forth Road Bridge shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
---------------------------------	----	--

- | | |
|---------------|--|
| Item coverage | (a) all access required,

(b) removal of the existing king post, |
|---------------|--|

- (c) disposal of the existing king post,
- (d) fabrication of the replacement king post as this series paragraph 6,
- (e) erection of the replacement king post as this series paragraph 9,
- (f) protective coating as series 1900 paragraph 4.

Tension Check of Forth Road Bridge Cable Band Bolts

- Units 49 The units of measurement shall be:
 - i) Tension check of Forth Road Bridge cable band bolts.....No
- Measurement 50 Measurement of tension check of cable band bolts shall be checking and if necessary adjusting the tension in all the bolts in each cable band.
- Itemisation 51 Separate items shall be provided for tension check of Forth Road Bridge cable band bolts in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Tension check of cable band bolts

- Tension check of Forth Road Bridge Cable Band Bolts** 52 The items for tension check of Forth Road Bridge cable band bolts shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
 - (a) all access required,
 - (b) all tools and equipment necessary to check and adjust the tension in the bolts,
 - (c) measuring the tension in all bolts in each cable band,
 - (d) adjusting the tension in all bolts in each cable band to the required tension,
 - (e) recording and reporting results.
- Item coverage

**Replacement of Packs between the Half Joints in the
Longitudinal Stringers on the Forth Road Bridge**

Units 53 The units of measurement shall be:

(i) Replacement of packs between half joints in the longitudinal stringers on the Forth Road BridgeNo

Measurement 54 Measurement of replacement of packs between the half joints in the longitudinal stringers on the Forth Road Bridge shall be the replacement of all the packs within the half joint.

Separate items shall be provided for replacement of the packs between the half joints in the longitudinal stringers on the Forth Road Bridge in accordance with Chapter II Paragraphs 3 and 4 and the following:

Group	Feature
I	1 Replacement of packs in main span
	2 Replacement of packs in side span

Replacement of packs between the half joint in the longitudinal stringers 56 The items for replacement of packs between the half joints of the longitudinal stringers on the Forth Road Bridge shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

- Item coverage
- (a) all access required,
 - (b) removal of existing packs including breaking out existing welds,
 - (c) disposal of existing packs,
 - (d) fabrication of the packs as this series Paragraph 6,
 - (e) installation of the existing packs as this series Paragraph 9 including adjusting pack height as required,
 - (f) all wedges, jacks, jacking stools and plant required for replacement of packs including installation and removal,

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- (g) preparation of surfaces to receive new packs,
- (h) drilling holes in existing steelwork,
- (i) checking deck levels before and during replacement of packs,
- (j) recording loads in jacks and measurement of deck levels and gaps,
- (k) loosening and re-tightening billets
- (l) surface preparation and protective coating as series 5000, Paragraphs 5 and 6.

Series 2000: Waterproofing for Structures

Above paragraph 1 insert the following paragraph 0:

Measurement General	0	Waterproofing and removal of waterproofing are not to be separately measured when existing waterproofing is being replaced.
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Replacement of Existing Waterproofing

After paragraph 12 insert the following paragraphs 13 to 17 inclusive:

Units	13	<p>The units of measurement shall be:</p> <p>(i) Replacement of existing waterproofing with proprietary sprayed waterproofing systemsquare metre,</p> <p>(ii) hydrodemolition on bridge decks.....cubic metre.</p>
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Measurement	14	Measurement of hydrodemolition on bridge decks shall be the volume of existing concrete removed by high pressure water jetting.
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Itemisation	15	Separate items shall be provided for replace existing waterproofing and hydrodemolition in accordance with Chapter II paragraphs 3 and 4 and the following:
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Group	Feature
I	<p>1 Replace existing waterproofing with proprietary sprayed waterproofing system.</p> <p>2 Hydrodemolition on bridge decks.</p>

Replace Existing Waterproofing	16	The items for replace existing waterproofing shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
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Item coverage	<p>(a) waterproofing (as this Series paragraph 4);</p> <p>(b) removal of waterproofing (as this Series paragraph 12);</p> <p>(c) visual inspection of deck;</p>
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(d) delamination survey;

(e) grit blasting

Hydrodemolition 17

The items for hydrodemolition on bridge decks shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

Item coverage

(a) marking out the areas of concrete removed;

(b) removal of concrete;

(c) removal of corroded steel;

(d) disposal of materials (as Series 600 paragraph 39);

(e) making good edges of repair;

(f) Safety Screening of hydrodemolition works to protect members of workforce and public;

(g) measures to prevent damage to existing surfaces;

(h) trials and approval tests.

Series 2300: Bridge Expansion Joints and Sealing of Gaps

Bridge Deck Expansion Joints

After paragraph 1 insert the following paragraph 1A:

Definition	1A	Type	Abbreviation	Description
		1	BJUCS	Buried joint under continuous surfacing.
		2	APJ	Asphaltic plug joint.
		3	EIMR	Elastomeric in metal runners.

Delete paragraph 2 to 4 and insert the following paragraphs 2 to 4 inclusive:

Units	2	The units of measurement shall be:
		<ul style="list-style-type: none"> (i) remove existing joint and replace with bridge deck expansion joints excluding type APJ linear metre (ii) remove existing joint and replace with bridge deck expansion joints type APJ cubic metre

Measurement	3	The measurement of bridge deck expansion joints measured as linear metres shall be the complete installation measured along the centre-line of the joint.
	3A	The measurement of bridge deck expansion joints type APJ shall be measured to the nearest 0.1m ³ .

Itemisation	4	Separate items shall be provided for remove existing joint and replace with bridge expansion joints in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Remove existing joint and replace with bridge deck expansion joints.
II	1 Different types.
III	1 Different movement ranges.

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**Bridge Deck
Expansion Joints**

5

In paragraph 5 insert after (p) the following (q) to (v):

Item coverage

- (q) removing existing bridge expansion joints including sealants, metalwork and joint filler, sub-surface drainage, below joint drainage and in-situ nosings;
- (r) cutting out and making good existing pavements, footways, kerbs, Structures and the like;
- (s) making good any damage caused by the foregoing operations;
- (t) disposal of material (as Series 600 paragraph 39);
- (u) removal and renewal of broken studs;
- (v) additional bedding and nosing material.

Series 3000: Landscape and Ecology

Ground Preparation and Cultivation

Delete paragraph 1 and insert the following paragraph 1:

Definition 1 Landscape and ecology work in this Series shall comprise new work and maintenance of existing areas that are not covered by items in Series 6100.

After paragraph 3 insert the following paragraph 3A:

Measurement 3A Vegetation clearance shall include for Site clearance.

Delete paragraph 4 and insert the following paragraph 4:

Itemisation 4 Separate items shall be provided for ground preparation and cultivation in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Vegetation clearance.
	2 Scrub control over 25% of cover, arisings chipped on Site.

Ground preparation and cultivation 5 In paragraph 5 after (j) insert the following (k) to (w) inclusive:

- Item coverage
- (k) demolition, breaking up and removal;
 - (l) removing undergrowth, felling trees or saplings not exceeding 100mm diameter (as recorded at a height of 1m above ground level) and grubbing up stumps;
 - (m) removing hedges, fencing and wires;
 - (n) credit value of materials;
 - (o) working around services;
 - (p) backfilling and compaction;
 - (q) making good to severed ends of existing fences, hedges and walls;
 - (r) disconnecting and sealing services;

- (s) preservation of individual or groups of trees, shrubs, hedges and other features;
- (t) reinstatement and making good;
- (u) filling post and stump holes with acceptable material from any source and compaction;
- (v) mechanical chipping of felled trees and saplings and spreading up to 25mm thick;
- (w) treatment of hazardous materials.

Planting

Planting

In paragraph 13 insert after (e) the following (f):

Item coverage 13 (f) tree tubes and ties.

Weed Control

Delete paragraph 17 and insert the following paragraph 17:

Units 17 The units of measurement shall be:

- (i) weed control square metre.

Delete paragraph 18 and insert the following paragraph 18:

Measurement 18 The measurement of weed control shall be the plan area.

Delete paragraph 19 and insert the following paragraph 19:

Itemisation 18 Separate items shall be provided for weed control in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Total weed control contact, translocated or residual herbicide.

Maintenance of Established Trees and Shrubs

After paragraph 21 (iii) insert (iv):

Units 21 (iv) removal of branches.....number.

After paragraph 22 insert the following paragraph 22A:

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Measurement 22A The girth of trees for felling shall be measured at a height of 1 metre above ground level. To be classed as a tree, vegetation must have a stem diameter of more than 100 mm.

The girth of branches to be removed shall be measured at the severance point and at right angles to the branch.

Removal of branches not exceeding 300mm girth shall be deemed to be thinning or coppicing and measured under the applicable items for thinning or coppicing.

Where five or more branches exceeding 300mm girth are to be removed from a single tree this will be deemed to be tree surgery and will be measured under the applicable items for tree surgery.

Delete paragraph 23 and insert the following paragraph 23:

Itemisation 23 Separate items shall be provided for maintenance of established trees and shrubs in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	<ol style="list-style-type: none"> 1 Thinning or coppicing of alternative percentage, height, spacing, any species and spreading arisings. 2 Tree surgery any species. 3 Removal of branches. 4 Tractor-mounted flail cutting of hedges.
II	<ol style="list-style-type: none"> 1 Different categories.
III	<ol style="list-style-type: none"> 1 Exceeding 300mm girth not exceeding 900mm girth. 2 Exceeding 900mm girth.

Note 1: Group II Feature 1 only applies to Group I Feature 2.

Note 2: Group III Features only apply to Group I Feature 3.

Thinning and Coppicing 25 In paragraph 25 after (g) insert the following (h):

Item coverage (h) spreading of arisings on Site.

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Tree Felling

Tree Felling

30 In paragraph 30 after (k) insert the following (l):

Item coverage

(l) sectional felling.

Series 3300: Site Investigation

Rotary Coring of Existing Pavement

Units	1	The unit of measurement shall be: (i) rotary coring of existing pavement..... number.
Measurement	2	The measurement of rotary coring of existing pavement and extra over for each increase in depth shall be for the complete operation and the depth of core shall be taken as the overall length of the extracted core.
Itemisation	3	Separate items shall be provided for rotary coring of existing pavement in accordance with Chapter II paragraphs 3 and 4 and the following:
<hr/>		
	Group	Feature
	I	1 Rotary coring of existing pavement depth of core not exceeding 400mm.
	II	1 Not exceeding 150mm diameter.
<hr/>		
Rotary Coring of Existing Pavement	4	The items for rotary coring of existing pavement shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
Item coverage		(a) Programming and setting out (b) cutting and extracting sample, (c) labelling, packaging and delivery to the Operating Company's store, (d) visual examination of cores (e) recording data, analysing, interpreting and reporting, (f) supplying the Overseeing Organisation with copies of the data and reports, (g) protecting and storing samples, (h) removing all loose or superfluous material, (i) disposal of material (as Series 600 paragraph 39), (j) reinstatement of paved area (as Series 700 paragraph 36).

Structural Investigations

Units 5 The unit of measurement shall be:
 (i) half cell potential survey, square metre,
 (ii) soluble chloride test..... number.

Itemisation 6 Separate items shall be provided for structural Investigations in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Features
I	1 Surveys. 2 Tests.

Structural Investigations 7 The items for structural Investigations shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

Item coverage (a) obtaining samples;
 (b) protecting and storing samples;
 (c) labelling, packaging and delivery of samples to the laboratory;
 (d) testing at an accredited laboratory;
 (e) recording data analysing interpreting and reporting;
 (f) supplying the Overseeing Organisation with advance copies of the results;
 (g) supplying the Overseeing Organisation with copies of the data and reports;
 (h) disposal of material (as Series 600 paragraph 39);
 (i) reinstatement.

Falling Weight Deflectometer Tests

Units 8 The unit of measurement shall be:
 (i) falling weight deflectometer test km.

Measurement 9 The measurement of falling weight deflectometer tests shall be the length of Lane tested.

Itemisation 10 Separate items shall be provided for falling weight deflectometer in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Tests.

**Falling Weight
Deflectometer
Tests**

11 The items for falling weight deflectometer tests shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

Item coverage

- (a) temperature measurements;
- (b) including repairs to pavement;
- (c) recording required data analysing interpretation and supplying the Overseeing Organisation with a copy of the data and reports.

Dynamic Cone Penetrometer Tests

Units 12 The unit of measurement shall be:

- (i) dynamic cone penetrometer testing of unbound carriageway sub-base, capping layer, subgrade and verges number.

Measurement 13 The measurement of dynamic cone penetrometer tests of unbound carriageway sub-base, capping layer, subgrade and verges shall be for the complete operation.

Itemisation 14 Item shall be provided for dynamic cone penetrometer tests of unbound carriageway sub-base, capping layer, subgrade and verges in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Tests.

**Dynamic cone
penetrometer
testing of
unbound
carriageway sub-
base, capping**

15 The items for dynamic cone penetrometer tests of unbound carriageway sub-base, capping layer, subgrade and verges shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

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**layer, subgrade
and verges.**

Item coverage

- (a) drilling or coring;
- (b) repeating failed tests;
- (c) recording data, analysing, interpreting and reporting;
- (d) supplying the Overseeing Organisation with copies of the data and reports;
- (e) disposal of material (as Series 600 paragraph 39);
- (f) reinstatement.

Series 5000: Maintenance Painting of Steelwork

Surface Preparation and Protective System

Insert the following paragraph 1A:

Definition 1A Surface preparation and protective system to hangers and main cable handstrands of Forth Road Bridge shall be measured under this Series 5000 paragraphs 7 to 11.

Delete paragraph 4 and insert the following paragraph 4:

Itemisation 4 Separate items shall be provided for surface preparation and protective system, in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Surface preparation
	2 Protective system
II	1 General surfaces on Forth Road Bridge approach viaducts
	2 Other general surfaces
III	1 Different types

Surface Preparation In paragraph 5 delete (h) insert the following (h):

Item coverage 5 (h) abrading and bevelling of edges into sound and firmly adhering material,

In paragraph 5 after (m) insert the following (n) to (o):

(n) merging with existing treatment,

(o) access, excluding provision, operation and maintenance of access for Group II Feature 1 – Forth Road Bridge approach viaducts.

Protective system In paragraph 6 add the following:

Item coverage 6 (d) merging with existing treatment,

(e) marking and lettering,

(f) access, excluding provision, operation and maintenance of access for Feature 1 – Forth Road Bridge approach viaducts.

After paragraph 6 insert the following paragraphs 7 to 11

Surface Preparation and Gulf Metalcoat Protective System to hangers and main cable handstrands of Forth Road Bridge

The Units of measurement for surface preparation and protective system to hangers and main cable handstrands shall be:

- Units 7 (i) surface preparation and protective system to cables linear metre.
- Measurement 8 The measurement of surface preparation and protective system for hangers and main cable handstrands shall be the length of the hangers and handstands.
- Itemisation 9 Separate items shall be provided for surface preparation and protective system to hangers and main cable handstrands of Forth Road Bridge in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Surface preparation
	2 Gulf Metalcoat protective system
II	1 Forth Road Bridge hangers
	2 Forth Road Bridge main cable handstands

- Surface Preparation to Hangers and Handstrands** 10 The items for surface preparation to hangers and main cable handstrands of Forth Road Bridge shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

- Item coverage (a) surface preparation (as this Series paragraph 5)
- (b) provision of suspended platform,
- (c) operation and maintenance of suspended platform,
- (d) trial on a low level suspender location,
- (e) provision of radio communication,

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- (f) mechanical agitation of paint,
- (g) provision of safe accesses to cradles,
- (h) operation of cradles.

**Gulf Metalcoat
Protective System
to Hangers and
Handstrands**

11

The items for Gulf Metalcoat protective system to hangers and main cable hand strands of Forth Road Bridge shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

Item coverage

- (a) Protective system (as this Series paragraph 6)
- (b) provision of suspended platform,
- (c) operation and maintenance of suspended platform,
- (d) trial on a low level suspender location,
- (e) provision of radio communication,
- (f) mechanical agitation of paint,
- (g) provision of safe accesses to cradles,
- (h) operation of cradles,
- (i) prevention of paint drips from falling onto live traffic,
- (j) surface preparation of cables,
- (k) application by hand using either brush or suitable-lined gloves,
- (l) brushes to be secured with small lanyard and attached to person or cradle prior to painting.

Series 6100: Core Operations

Core Operations

Definitions	1	Except for mobilisation, which is to be paid in accordance with Series 100, the Core Operations to be provided under this Contract shall be measured in accordance with this Series.
	2	Any Operations that are additional to Core Operations will be subject to an Order and shall be measured in accordance with the appropriate Series in this Schedule of Rates and Prices.
Units	3	The units of measurement shall be: (i) individual Core Operationsmonth. (ii) Winter Severity Adjustmentsum
Measurement	4	Item 610001008 Schedule 2 – Scope, - Section 6 Network Operations – Winter Service Commencement of Service Date will be subject to a Winter Severity Adjustment for either a Mild Winter or Severe Winter as follows: (a) The severity adjustment will be made on the basis of actual salt usage and calculated post winter period. (b) To be categorised as a Severe Winter salt usage for the Winter Service Period must exceed: 21,000 tonnes (c) To be categorised as a Mild winter salt usage for the Winter Service Period must not exceed: 9,000 tonnes. (d) Payment adjustment will be on the basis of a pro rata calculation derived from the Core Operation item 610001008 Schedule 2 – Scope, - Section 6 Network Operations – Winter Service. (e) In the event of a Severe Winter the adjustment will include for all associated costs and will result in further payment to the Operating Company. (f) Conversely, in the event of a Mild Winter, a credit will be due to the Scottish Ministers. Any credit would be capped at 10% of Item 610001008. (g) An example Severe Winter calculation is as follows:

Example Winter monthly sum = £200,000

Example Winter salt usage = 23,000 tonnes

Severe Winter threshold 21,000 tonnes

Calculation =

$(23,000 - 21,000 \text{ t}) / 21,000 \times 100 = 9.52\%$

$£200,000 \times 9.52\% = £19,040$

$£19,040 \times 12 \text{ months} = £228,480$

The Operating Company would be due £228,480 in additional costs for the Severe Winter

(h) An example Mild Winter calculation is as follows:

Example Winter monthly sum = £200,000

Example Winter salt usage = 7,000 tonnes

Mild Winter threshold = 9,000 tonnes

Calculation =

$(9,000 - 7,000 \text{ t}) / 9,000 \times 100 = 22.22\%$

$£200,000 \times 22.22\% = £44,440$

$£44,440 \times 12 \text{ months} = £533,280$

Credit Capped at 10% of annual value =

$£200,000 \times 12 = £2,400,000 \times 10\%$

=£240,000

The Scottish Ministers would be due a £240,000 credit for the Mild Winter.

5 Following Commencement of Service, the Operating Company may include in its Application for Payment the total amount eligible for Winter Service up to March 2021.

Example: Winter monthly sum = £200,000

Commencement of Service Date = 17 August 2020

August 2020 = 15 days/31 days x £200,000; September 2020 to March 2021 = 7 months x £200,000

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Total amount eligible in August 2020 Application for Payment for =
£200,000 x (15/31 + 7) = **£1,496,774**

Itemisation 6 Separate items shall be provided for management, inspection and maintenance operations in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Schedule and Section number.
	2 Winter Severity Adjustment.
II	1 Different management, inspection and maintenance Operations.

Note: Group II does not apply to Group 1 Feature 2.

Introduction 7 The item for introduction shall in accordance with the Preambles to the Schedule of Rates and Prices General Directions include for:

Item coverage (a) compliance with Schedule 2 – Scope, Section 1 – Introduction excluding Section 1.5 Inventory validation, collection & updating.

Inventory Validation, 8 The item for Inventory validation, collection & updating shall in accordance with the Preambles to the Schedule of Rates and Prices General Directions include for:

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**Collection &
Updating**

Item coverage (a) compliance with Schedule 2 – Scope, Section 1.5 – Inventory validation, collection & updating.

Defects, Hazard Notices & Observations Resulting from Inspections 9 The item for Defects, Hazard Notices & Observations Resulting from Inspections shall in accordance with the Preambles to the Schedule of Rates and Prices General Directions include for:

Item coverage (a) compliance with Schedule 2 – Scope, Section 2 – Defects, Hazard Notices & observations resulting from inspections.

Inspection and maintenance – Roads Including Landscape 10 The item for the inspection and maintenance - roads including landscape shall in accordance with the Preambles to the Schedule of Rates and Prices General Directions include for:

Item coverage (a) compliance with Schedule 2 – Scope, Section 3 – Inspection and maintenance – Roads incl. Landscape

Inspection and Maintenance - Structures 11 The item for the inspection and maintenance - Structures shall in accordance with the Preambles to the Schedule of Rates and Prices General Directions include for:

Item coverage (a) compliance with Schedule 2 – Scope, Section 4 – Inspection and maintenance – Structures excluding Subsections 4.13 Sub-standard Structures & Structures with known Defects and 4.14 Structures with Particular Requirements.

Sub standard Structures & structures with known Defects 12A The item for Sub-standard Structures & Structures with known Defects shall in accordance with the Preambles to the Schedule of Rates and Prices General Directions include for:

Item coverage (a) compliance with Schedule 2 – Scope, Section 4 – Inspection and Maintenance – Structures in respect of Subsection 4.13 Sub standard Structures & Structures with known Defects

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Structures with Particular Requirements	12B	The item for Structures with Particular Requirements shall in accordance with the Preambles to the Schedule of Rates and Prices General Directions include for:
Item coverage		(a) compliance with Schedule 2 – Scope, Section 4 – Inspection and Maintenance – Structures in respect of Subsection 4.14 Structures with Particular Requirements.
Network Operations - Traffic Scotland	13	The item for Network Operations - Traffic Scotland shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
Item coverage		compliance with Schedule 2 – Scope, Section 5 – Network Operations –Traffic Scotland.
Network Operations – Winter Service	14	The item for Network Operations – Winter Service shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
Item coverage		compliance with Schedule 2 – Scope, Section 6 – Network Operations – Winter Service.
Winter Severity Adjustment	15	The item for Winter Severity Adjustment shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
Item coverage		(a) all costs or credits associated with a Severe Winter or Mild Winter as defined in paragraph 5 of this Series 6100.
Network Operations – Disruption Risk Management	16	The item for Network Operations – disruption risk management shall in accordance with the Preambles to the Schedule of Rates and Prices General Directions include for:
Item coverage		(a) compliance with Schedule 2 – Scope, Section 7 – Network Operations – Disruption Risk Management
Design, Construction and Certification of Operations	17	The item for Design, construction and certification of Operations shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
Item coverage		(a) compliance with Schedule 2 – Scope, Section 8 – Design, Construction and Certification of Operations.

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Abnormal Loads	18	The item for abnormal loads shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
Item coverage		(a) compliance with Schedule 2 – Scope, Section 9 – Abnormal loads.
Safety & Developments – Developments	19	The item for safety & developments – developments shall in accordance with the Preambles to the Schedule of Rates and Prices General Directions include for:
Item coverage		(a) compliance with Schedule 2 – Scope, Section 10 – Safety & developments – Developments.
Safety & Developments - Road Safety Programme	20	The item for safety & developments - road safety programme shall in accordance with the Preambles to the Schedule of Rates and Prices General Directions include for:
Item coverage		(a) compliance with Schedule 2 – Scope, Section 11 – Safety & developments - Road Safety Programme.
Signs Requiring Authorisation	21	The item for signs requiring authorisation shall in accordance with the Preambles to the Schedule of Rates and Prices General Directions include for:
Item coverage		(a) compliance with Schedule 2 – Scope, Section 12– Signs requiring authorisation.
Introduction	22	The item for introduction shall in accordance with the Preambles to the Schedule of Rates and Prices General Directions include for:
Item coverage		(a) compliance with Schedule 3 – Contract Management, Section 1 – Introduction.
Key People	23	The item for key people shall in accordance with the Preambles to the Schedule of Rates and Prices General Directions include for:
Item coverage		(a) compliance with Schedule 3 – Contract Management, Section 2 – Key people.
Offices, Depots & Other Infrastructure	24	The item for offices, depots & other infrastructure shall in accordance with the Preambles to the Schedule of Rates and Prices General Directions include for:

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Item coverage		(a) compliance with Schedule 3 – Contract Management, Section 3 – Offices, depots & other infrastructure.
Systems, Plans and Records	25	The item for systems, plans and Records shall in accordance with the Preambles to the Schedule of Rates and Prices General Directions include for:
Item coverage		(a) compliance with Schedule 3 – Contract Management, Section 4 – Systems, plans and Records.
Stakeholder and Customer Engagement	26	The item for stakeholder and customer engagement shall in accordance with the Preambles to the Schedule of Rates and Prices General Directions include for:
Item coverage		(a) compliance with Schedule 3 – Contract Management, Section 5 – Stakeholder and Customer Engagement
Disclosure of information	27	The item for legislation and disclosure of information shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
Item coverage		(a) compliance with Schedule 3 – Contract Management, Section 6 - Disclosure of information
Control of Core & Ordered Operations	28	The item for control of Core and Ordered Operations shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
Item coverage		(a) compliance with Schedule 3 – Contract Management, Section 7 – Control of Core & Ordered Operations..
Procurement & Management of Schemes	29	The item for procurement & management of Schemes shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
Item coverage		(a) compliance with Schedule 3 – Contract Management, Section 8– Procurement & management of Schemes
Measuring Performance	30	The item for measuring performance shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
Item coverage		(a) compliance with Schedule 3 – Contract Management, Section 9 – Measuring performance.

Series 6200: Professional Services

Professional Services

Definitions	1	Roles covered by each Specialist Category are included in Appendix 62/1 of Schedule 5 Specification.
Units	2	The units of measurement shall be: (i) staff category and classification hour.
Measurement	3	Professional Services for Operations that are not covered under Core Operations rates shall apply for Scheme Investigations. Professional Services for Operations that are not covered under Core Operations rates shall apply for Design carried out within the following Work Codes: 0101 - Reconstruction 0102 - Structural Inlay (>80mm) or Overlay (>50mm) 0103 - Resurfacing (non-structural inlay/overlay) 0104 - Surface Treatment 0303 - Maintenance of footways and cycle tracks 0316 - New footways and cycle tracks 0315 - Road lighting and electrical work 0321 – Equality Act Barriers 0322 – Adaptation programme 1201 - Bridges and culverts 2 metres and over, retaining wall over 1.5 metres and other Structures 1202 - Bridge strengthening 1203 - Major bridges 1205 - Protective coatings to steel Structures 1206 - Structural assessment 1207 - Special investigations 0313 - Landscape and planting

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0801 - Individual Strategic Road Safety Schemes

0802 – Active Travel Schemes

0901 - Individual Improvement Schemes

0902 – Adaptation works

9804 – Damage repair & cost recovery service > £50,000.

Professional Services for Design carried out within Work Codes other than those stated above and that are not covered by Core Operations shall be measured in accordance with Series 6300 – Fee Percentages for Design, Procurement and Management.

Professional Services for other Operations shall only be measured using this Series where subject to an Order stating that Professional Services are to be used.

The measurement of work at professional services rates shall be based on certified timesheet records. Travel time shall be paid for travel from the Central Office or a sub office within the Unit to the location where the services are being undertaken whichever is the lesser.

Itemisation 4 Separate items shall be provided for professional services rates in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Category of staff.
	2 Staff classification.

Professional Services 5 The items for professional services rates shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

- Item coverage
- (a) basic time and overtime worked,
 - (b) non-productive overtime payments,
 - (c) bonuses and incentive payments,
 - (d) National Insurance,
 - (e) holidays with pay,

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- (f) sickness benefits,
- (g) pension and life insurance benefits,
- (h) travel and subsistence,
- (i) car and car allowance,
- (j) office accommodation, equipment and supplies,
- (k) administration (including managerial, supervisory, clerical, administrative and accountancy staff),
- (l) any tax, charge, levy impost or payment of any kind which the Operating Company shall be obliged to pay by law to make on behalf of persons employed by the Operating Company including all mobilisation and demobilisation requirements,
- (m) appropriate computers and general office applications and software,
- (n) printing, binding, photocopying and similar administrative tasks,
- (o) preparation, updating and submission to the Director of registers of staff, curricula vitae and other details,
- (p) all other costs and all charges whatsoever associated with the employment of any such professional.

Series 6300: Fee Percentages for Design, Procurement and Management

Generally

- Definitions 1 The following definitions shall apply to this Series of this Schedule:
- (i) "Roadworks" means Schemes other than Bridgeworks Schemes.
 - (ii) "Bridgeworks" means Schemes in which work on Structures has a content of 40% or more of the Estimated Construction Value.
 - (iii) "Cost" means the Estimated Construction Value of the Scheme as stated in the approved Statement of Intent, excluding any bonus adjustments or other charges related to lane rental Works Contracts.

Fee Percentages for Design of Schemes to be Constructed by the Operating Company

- Units 2 The unit of measurement shall be:
- (i) fees for Design of Schemes to be constructed by the Operating Company where the Estimated Construction Value exceeds £50,000..... percentage.
- Measurement 3 Fee percentages shall be used for the Design of Schemes that are to be constructed by the Operating Company and:
- (i) which do not fall within the Work Codes outlined in Series 6200 paragraph 3 and;
 - (ii) the Estimated Construction Value as stated within the approved Statement of Intent is greater than £50,000.
- 4 Fee percentages for Design shall be measured against the Estimated Construction Value as stated within the approved Statement of Intent and not the final outturn construction costs
- 5 The quantity to be measured shall reflect the proportion of Design completed in respect of the Estimated Construction Value.
- Itemisation 6 Separate items shall be provided for fees for the Design of Schemes to be constructed by the Operating Company where the Estimated

**SCOTTISH TRUNK ROAD NETWORK MANAGEMENT CONTRACT
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Construction Value exceeds £50,000 in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Design of Roadworks Schemes to be constructed by the Operating Company.
	2 Design of Bridgeworks Schemes to be constructed by the Operating Company.

Fees for Design of Schemes to be Constructed by the Operating Company

7 The items for fees for Design of Schemes to be constructed by the Operating Company where the Estimated Construction Value exceeds £50,000 shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

Item coverage

(a) compliance with Schedule 2 – Scope, Section 8 – Design, Construct and Certification of Operations..

Fee Percentages for Design, Procurement and Management of Works Contracts

Units

8 The unit of measurement shall be:

(i) fees for Design, procurement and management of Works Contracts..... percentage.

Measurement

9 Rates for procurement and management of Works Contacts shall also apply to work on the Unit undertaken by others that the Scottish Ministers require the Operating Company to procure and or supervise.

10 Fee percentages for Design, procurement and management of Works Contacts shall be measured against the Estimated Construction Value as stated within the approved Statement of Intent and not the final outturn construction costs.

11 The quantities to be measured shall reflect the proportions of Design, procurement or management completed in respect of the Estimated Construction Value.

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12 The percentage entered against the first Cost band shall be used to measure the element of Cost of a Works Contract below £1,000,000, (roads) or £1,500,000 (bridges).

The percentages entered against subsequent Cost bands shall be applied in the same manner to the stated element of Cost.

Itemisation 13 Separate items shall be provided for the Design, procurement and management of Works Contracts in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Design.
	2 Procurement.
	3 Management.
II	1 Roadworks Works Contracts.
	2 Bridgeworks Works Contracts .
III	1 Different Cost elements.

Note: Group II Feature 2 shall not apply to Group I Feature 1.

Fees for Design of Works Contracts 14 The items for the fees for Design of Works Contracts shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

Item coverage (a) compliance with Schedule 2 – Scope, Section 8 – Design, Construct and Certification of Operations in respect of Design for Works Contracts..

Fees for Procurement of Works Contracts 15 The items for the fees for procurement of Works Contracts shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

Item coverage (a) compliance with Schedule 3 – Contract Management, Section 8 Procurement & management of Schemes in respect of procurement and award of Works Contracts.

Fees for Management of Works Contracts 16 The items for fees for management of Works Contracts shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

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Item coverage (a) compliance with paragraphs Schedule 3 – Contract Management, Section 8 Procurement & management of Schemes in respect of management of Works Contracts.

Series 6400: Adjustment to Schedule of Rates and Prices

Working outwith Normal Working Hours

Units	1	The unit of measurement shall be: (i) percentage adjustment to value of Operations executed outwith Normal Working Hours percentage.				
Measurement	2	Operations executed outwith Normal Working Hours shall not be subject to percentage adjustment unless the Director has given prior written consent.				
	3	The percentage shall be applied to the measured value of the approved Operations executed outwith Normal Working Hours.				
Itemisation	4	Separate items shall be provided for Percentage adjustment to value of Operations executed outwith Normal Working hours in accordance with Chapter II paragraphs 3 and 4 and the following:				
		<table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Group</th> <th style="text-align: left; border-bottom: 1px solid black;">Feature</th> </tr> </thead> <tbody> <tr> <td style="border-right: 1px solid black; padding-right: 10px;">I</td> <td style="padding-left: 10px;">1 Percentage adjustment to value of Operations executed outwith Normal Working Hours.</td> </tr> </tbody> </table>	Group	Feature	I	1 Percentage adjustment to value of Operations executed outwith Normal Working Hours.
Group	Feature					
I	1 Percentage adjustment to value of Operations executed outwith Normal Working Hours.					
Adjustment for working outwith Normal Working Hours	5	The percentage adjustment to the Schedule of Rates and Prices inserted in the items for working outwith Normal Working Hours shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:				
Item coverage		(a) all additional costs.				

Series 6500: Time Work Schedule

Time Work Schedule

- Definition 1 The term 'Sub-contractors' used in this Series shall include "Labour only" sub-contractors.
- Sub-contractors labour, plant and materials shall be included in the Applications for Payment submitted by the Operating Company and shall be paid at the rates and prices contained herein as though they are directly employed by the Operating Company in accordance with this Series. No adjustment or allowance shall be applied in respect of labour, plant and materials supplied by sub-contractors.
- Unless otherwise ordered by the Overseeing Organisation, Series 6500: Time Work Schedule items shall not be measured where there are appropriate items in Series 100 to 6400 and Series 6700 to 6800 of this Schedule, or where similar items exist from which a rate can be deduced in accordance with Clause 5.2.1 (c) of Schedule 1 – Conditions of Contract, Clause 5 – Payments.

Labour

- 2 Trades and activities to be carried out by the labour type as detailed under this Series shall be as Table 1 below.

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Table 1

Labour Type	Trades and Activities Applicable (inclusive of sub-contractors).
Ganger	Working foreman, covering all trades.
Driver/machine operator	Heavy goods vehicle driver, machine/plant operator.
Skilled operative	Surfacing operative, traffic management operative, fencing operative, footway and kerb laying operative, drainage operative, scaffolder, reinforcement bar fixer, steelwork erectors/fabricator, mechanic/fitter, welder, painter, rigger, landscape operative and other skilled operative.
Craftsman	Bricklayer, painter, decorator, carpenter, joiner, plumber and other skilled craftsman.
Electrician	Traffic signals, road lighting and communications engineer.
General Operative	Labourer, watchman, banksman, handyman, light duty driver and other general or unskilled operative.

- Units 3 The units of measurement shall be:
- (i) ganger, driver/machine operator, skilled operative, craftsman, electrical engineer, general operativehour.
- Measurement 4 The measurement of ganger, driver/machine operator, skilled operative, craftsman, electrical engineer and general operative shall be the actual hours spent on work on the Site when Operations are subject to an Order.
- Itemisation 5 Separate items shall be provided for Labour in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
1	1 Driver/machine operator.
	2 Skilled operative.
	3 Craftsman.

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		4	Electrician.
		5	General operative.
		II	1 During Normal Working Hours.
			2 Outside Normal Working Hours.
Labour	6	The items for Labour shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:	
Item coverage		(a)	basic cost of labour for workmen;
		(b)	plus rates for skill;
		(c)	all other amounts of every kind paid in accordance with the rules of the appropriate wage fixing body;
		(d)	non-productive overtime and associated costs;
		(e)	all bonuses, payments and incentives in excess of the basic cost of labour;
		(f)	national insurance and surcharges,
		(g)	normal contract work, third party and employers liability insurances;
		(h)	annual and public holidays with pay and benefit scheme;
		(i)	non-contributory sick pay scheme;
		(j)	industrial training levy;
		(k)	redundancy payments;
		(l)	the Employment Rights Act 1996;
		(m)	Site supervision and staff including foremen and walking gangers;
		(n)	small tools, appliances and plant not provided for in paragraphs 7, 8 and 9 of this Series;
		(o)	protective clothing;
		(p)	transport within or related to the Unit;
		(q)	welfare facilities;
		(r)	establishment charges, overheads and profit;

- (s) preparation, updating and submission to the Director of registers of staff, curricula vitae;
- (t) travelling time to from within or related to the Unit;
- (u) pension and life insurance benefits;
- (v) cars, other vehicles, and car and other vehicle allowances;
- (w) running and maintenance costs of cars and other vehicles.

Plant

Definitions

7

Basic cost of plant and percentage adjustment:

(i) the basic cost of plant shall be charged at the hire rates set down in *Section 4 Plant* of the *Schedules of Dayworks Carried Out Incidental to Contract Work* published by the Civil Engineering Contractors Association current forty two days prior to the latest date for the Final Tender Submission.

The notices and conditions set down in *Section 4 Plant* of the *Schedules of Dayworks Carried Out* shall not apply;

(ii) only the actual time plant is working or made available on the Site in accordance with sub paragraph (iv) of this paragraph 7 on Time Work Operations shall be chargeable;

(iii) the period stated in *Section 4 Plant* of the *Schedules of Dayworks Carried Out Incidental to Contract Work* for plant not listed shall be the minimum chargeable;

(iv) Plant to be made available on Site for a Time Work Operation and subject to an Order shall be charged at two-thirds of the rate obtained in accordance with sub-paragraph (i) of this paragraph 7 for the time the plant is made available but not used, subject to a maximum of 8 hours per Working Day and 40 hours in a working week;

(v) rates for mechanical and other special plant not normally classed as small tools and not included in the Schedule of Rates and Prices or *Section 4 Plant* of the *Schedules of Dayworks Carried Out Incidental to Contract Work* shall be paid for at hire rates reasonably

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related to those obtained in accordance with sub-paragraph (i) of this paragraph 7;

(vi) the Operating Company shall include for percentage adjustment to the basic cost of plant in *Section 4 Plant* of the *Schedule of Dayworks Carried Out Incidental to Contract Work*. The adjustment may be positive or negative.

Units 2

The units of measurement shall be:

- (i) basic cost of plant sum,
- (ii) percentage adjustment to the basic cost of plant percentage.

Itemisation 4

Separate items shall be provided for the basic cost of plant in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Basic cost of plant.
	2 Percentage adjustment to the basic cost of plant.

Basic Cost of Plant 10

The basic cost of plant for Time Work shall in accordance with *Section 4 Plant* of the *Schedules of Dayworks Carried Out Incidental to Contract Work* and in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

Item coverage

- (a) all associated costs irrespective of whether plant is owned, hired or leased;
- (b) fuel;
- (c) consumable stores;
- (d) repairs;
- (e) maintenance;
- (f) insurance;
- (g) establishment charges overheads and profit;
- (h) be exclusive of operator, driver and attendants.

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Percentage Adjustment to the Basic Cost of Plant 11 The percentage adjustment to the basic cost of plant shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:

- Item coverage
- (a) owned, hired or leased plant;
 - (b) general servicing, overheads and replacements;
 - (c) fuel distribution;
 - (d) transporting within or related to the Unit;
 - (e) all other charges and costs not recovered in basic cost of plant;
 - (f) discounts.

Materials

Definitions 12 Basic cost of materials and percentage adjustment:

- (i) the basic cost of materials shall be charged at the net invoiced price of materials delivered to the Operating Company;
- (ii) the Operating Company shall include for percentage adjustment to the basic cost of materials in Section 2 Materials of the *Schedule of Dayworks Carried Out Incidental to Contract Work*.

Units 13 The units of measurement shall be:

- (i) basic cost of materials sum,
- (ii) percentage adjustment to the basic cost of materials percentage.

Itemisation 14 Separate items shall be provided for the basic cost of materials in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
1	1 Basic cost of materials.
	2 Percentage adjustment to the basic cost of materials.

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Basic Cost of Material	15	The basic cost of material shall in accordance with Section 2 Materials of the <i>Schedules of Dayworks Carried Out Incidental to Contract Work</i> and in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
Item coverage		(a) all costs of materials delivered to the Unit.
Percentage Adjustment to the Basic Cost of Materials	16	The percentage adjustment to the basic cost of materials shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:
Item coverage		(a) ordering and taking delivery; (b) unloading, storing and protecting; (c) double handling; (d) waste; (e) discounts; (f) establishment charges, overheads and profit; (g) delivery within or related to the Unit; (h) all other charges and costs not recovered in basic cost of materials.

Series 6600: Third Party Works

Third Party Works

Definitions	1	Third Party Works includes for any subcontractor or other third party engaged to deliver Operations or services.						
Units	2	<p>The units of measurement shall be:</p> <p>(i) basic costs of Third Party Works sum,</p> <p>(ii) adjustment to basic cost of Third Party Works.... percentage.</p>						
Measurement	3	<p>Third Party Works shall be measured for works which the Director decides to procure as such, in accordance with Clauses 6.2.12 and 6.2.13 of Schedule 1 – Conditions of Contract, Clause 6 – 6.2 Orders, Schemes, Threshold Values and Bids,</p>						
Measurement	4	<p>The measurement of any invoiced costs for Third Party Works shall be the value of invoices received, after any discounts given except in respect of any discount for prompt payment not exceeding 2.5% which may be retained by the Operating Company.</p> <p>The percentage adjustment shall be applied to the correctly submitted invoiced costs excluding Value Added Tax.</p>						
Itemisation	5	<p>Separate items shall be provided for Third Party Works in accordance with Chapter II paragraphs 3 and 4 and the following:</p>						
<table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 10%; border-bottom: 1px solid black;">Group</th> <th style="text-align: left; border-bottom: 1px solid black;">Feature</th> </tr> </thead> <tbody> <tr> <td style="border-bottom: 1px solid black;">I</td> <td style="border-bottom: 1px solid black;">1 Basic costs.</td> </tr> <tr> <td></td> <td>2 Percentage adjustment to basic costs.</td> </tr> </tbody> </table>			Group	Feature	I	1 Basic costs.		2 Percentage adjustment to basic costs.
Group	Feature							
I	1 Basic costs.							
	2 Percentage adjustment to basic costs.							
Basic Costs of Third Party Works.	5	<p>The basic costs of Third Party Works shall in accordance with the Preambles to the Schedule of Rates and Prices General Directions include for:</p>						
Item coverage		<p>(a) labour;</p> <p>(b) plant;</p> <p>(c) materials;</p>						

**SCOTTISH TRUNK ROAD NETWORK MANAGEMENT CONTRACT
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(d) provision of temporary works and access on those structures listed in Schedule 2 Structures Appendix 4 Attachment 4.15 Structures with Particular Requirements

(c) other third party costs excluding inclusions as listed in the Preamble to this Schedule 4..

**Percentage
Adjustment to
Basic Costs of
Third Party
Works.**

6

The percentage adjustment to basic costs of Third Party Works shall in accordance with the Preambles to the Schedule of Rates and Prices General Directions include for:

Item coverage

(a) all inclusions as listed in Preambles except where noted in Paragraph 5 (d) to this Series 6600;

(b) all other charges and costs overheads and profit not recovered in basic costs of Third Party Works.

Series 6700: Changes in Scope of Operations

Changes in the Extent of the Unit Impacting on Core Operations Items in Series 6100

Definition	1	<p>If at any time during the Service Delivery Period the extent of the Unit increases or decreases, items in this Series shall be measured to cover the impact of the change on Core Operations items measured in Series 6100. Measurement of these items shall be deemed to cover the impact on all items within Series 6100.</p> <p>Cumulative spans of bridges are the summation of the individual clear span(s) that makes up the bridge.</p>
Units	2	<p>The units of measurement shall be:</p> <p>(a) addition/deduction for other changes in the extent of the Unit for carriageways kilometre/month,</p> <p>(b) addition/deduction for other changes in the extent the Unit for Structures number/month.</p>
Measurement	3	<p>The measurement of the change in the extent of Trunk Roads in the Unit shall be the length of carriageway added to or removed from the Unit.</p> <p>No deduction from the measurement of carriageway shall be made for Structures.</p> <p>Roundabouts and slip roads shall be measured as single carriageway.</p> <p>For slip roads the length shall be the distance between the mid-point of the nominal channel at its junctions. Roundabouts shall be measured along the centre-line between the outer edges of its carriageway.</p> <p>A footbridge shall be defined as the totality of the Structure.</p> <p>Additions to the length of the road network shall be measured as a positive quantity. Deductions from the length of the road network shall be measured as a negative quantity.</p>

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Additions to the number of Structures shall be measured as a positive quantity. Deduction from the number of Structures shall be measured as a negative quantity.

Itemisation 4 Separate items shall be provided for changes in the extent of the Trunk Road network impacting on Core Operation items in Series 6100 in accordance with Chapter II paragraphs 3 and 4 and the following:

Group	Feature
I	1 Addition/deduction for change in the extent of the Unit.
	1 Carriageway.
	2 Structure.
	1 Bridge with cumulative clear spans not exceeding 10 metres.
	2 Bridge with cumulative clear spans exceeding 10 metres but not exceeding 50 metres.
	3 Bridge with cumulative clear spans exceeding 50 metres.
	4 Footbridge.
	5 Sign gantry/signal gantry.

Note: Group III shall only apply to Group II feature 2.

Changes in the Extent of the Unit Impacting on Core Operation Items in Series 6100 5 The items for changes in the extent of the Unit impacting on Core Operation items in Series 6100 shall in accordance with the Preambles to the Schedule of Rates and Prices General Directions include for:

Item coverage (a) all costs or savings occasioned by the change.

Series 6800: Carrying out Operations in another unit

Percentage Adjustment to value of Operations Executed in Another unit

Units	1	<p>The unit of measurement shall be:</p> <p>(i) adjustment to value of Operations executed in another unit percentage.</p>				
Measurement	2	<p>The percentage adjustment shall be applied to the value of the Ordered Operations which have been executed in another unit elsewhere on the Scottish Trunk Road Network Operations shall be measured as follows:</p> <p>(i) using items from Series 0100 to 5000 and 6400;</p> <p>(ii) applying the percentage adjustment to the total value of Operations measured under Series 0100 to 5000 and 6400 to allow for all additional costs associated with executing Operations in another unit.</p>				
Itemisation	3	<p>Separate items shall be provided for Operations carried out in another unit in accordance with Chapter II paragraphs 3 and 4 and the following:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Group</th> <th style="text-align: left;">Feature</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">I</td> <td>1 Percentage adjustment to the value of Operations executed in another unit.</td> </tr> </tbody> </table>	Group	Feature	I	1 Percentage adjustment to the value of Operations executed in another unit.
Group	Feature					
I	1 Percentage adjustment to the value of Operations executed in another unit.					
Percentage Adjustment to value of Operations executed in another unit	4	<p>The percentage adjustment to value of Operations executed elsewhere on the Network shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:</p>				
Item coverage		<p>(a) all other charges and costs not recovered in the measured value of the Ordered Operations.</p>				

Series 6900: Payment of Accounts

Payment of Accounts

Definition	1	<p>Services involving the payment of accounts shall include but not be limited to the following:</p> <p>(a) payment of Undertakers' accounts;</p> <p>(b) payment of Network Rail Possession charge accounts;</p> <p>(c) payment of accounts for tipping charges where disposal of material is not included in item coverage elsewhere or where separate measurement is expressly stated.</p>				
Units	2	<p>The units of measurement shall be:</p> <p>(i) invoiced costs of accounts sum.</p>				
Measurement	3	<p>The measurement of invoiced costs of accounts shall be the value of invoices received after any discounts given except in respect of any discount for prompt payment not exceeding 2.5% which may be retained by the Operating Company.</p> <p>The percentage adjustment shall be applied to the invoiced costs excluding Value Added Tax.</p> <p>Processing of payment of accounts, subsequent inclusion of the relevant amounts in monthly statements, any other costs and associated overheads and margin is deemed to be included in Core Operations.</p>				
Itemisation	4	<p>Separate items shall be provided for invoiced costs of accounts in accordance with Chapter II paragraphs 3 and 4 and the following:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Group</th> <th style="text-align: left;">Feature</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">I</td> <td style="text-align: center;">1 Invoiced costs of accounts.</td> </tr> </tbody> </table>	Group	Feature	I	1 Invoiced costs of accounts.
Group	Feature					
I	1 Invoiced costs of accounts.					
Invoiced Costs for Payment of Accounts	5	<p>Invoiced costs of accounts shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for:</p> <p>(a) invoiced costs.</p>				
Item coverage		<p>(a) invoiced costs.</p>				

Series 7000: Lump Sum Quotations

Lump Sum Quotations

- | Units | 1 | The units of measurement shall be:

(i) Lump Sum Quotationsum. | | | | | | |
|---|---------|--|-------|---------|--|---|---|--------------------|
| Measurement | 2 | Lump Sum Quotation shall not be used unless the Director has given prior written consent. | | | | | | |
| Itemisation | 3 | Separate items shall be provided for Lump Sum Quotations in accordance with Chapter II paragraphs 3 and 4 and the following: | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">Group</th> <th style="width: 10%;">Feature</th> <th></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">I</td> <td style="text-align: center;">1</td> <td>Lump sum Quotation</td> </tr> </tbody> </table> | | | Group | Feature | | I | 1 | Lump sum Quotation |
| Group | Feature | | | | | | | |
| I | 1 | Lump sum Quotation | | | | | | |
| Lump Sum Quotation | 4 | The item for Lump Sum Quotation shall in accordance with the Preambles to Schedule of Rates and Prices General Directions include for: | | | | | | |
| Item coverage | | (a) all costs to undertake the Operations as a Lump Sum Quotation. | | | | | | |

**SCOTTISH TRUNK ROAD NETWORK MANAGEMENT CONTRACT
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Appendix 1 – Rates and Prices

To be separately bound into executed document following tender submission.

Appendix 2 – Breakdown of Rates and Prices

To be separately bound into executed document following tender submission.