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Transport Infrastructure Ireland

## TII Publications



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# Introduction to the Requirements for Measuring and Pricing

**CC-RMP-00010**

October 2016

## About TII

Transport Infrastructure Ireland (TII) is responsible for managing and improving the country's national road and light rail networks.

## About TII Publications

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## TII Publications



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<b>Activity:</b>	Construction & Commissioning (CC)
<b>Stream:</b>	Requirements for Measuring and Pricing (RMP)
<b>TII Publication Title:</b>	Introduction to the Requirements for Measuring and Pricing
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# 1. Contents of the Requirements for Measuring and Pricing

## **CC-RMP-00100 Requirements for Measuring and Pricing Preliminaries**

Definitions  
Temporary Accommodation  
Permanent Accommodation  
Vehicles for the Employer's Personnel  
Communication System for the Employer's Representative  
Operatives for the Employer's Representative  
Information Board  
Traffic Safety and Management  
Temporary Diversion for Traffic  
Recovery Vehicles  
Progress Photographs  
Road Sweeping and Cleaning  
Emergency Services  
Facilities for Local Authority, Public or Private Utility Undertakers and Other Contractors  
Property Condition Surveys  
Project Supervisor for the Construction Stage  
Safety File  
As Built Records  
Specialist Works  
Standing Conciliator

## **CC-RMP-00200 Requirements for Measuring and Pricing of Site Clearance**

Site Clearance  
Take Up or Down and Set Aside for Re-use or Remove to Store Off Site

## **CC-RMP-00300 Requirements for Measuring and Pricing of Fencing and Environmental Noise Barriers**

Fencing, Gates and Stiles  
Remove from Store and Re-erect Fencing Gates and Stiles  
Walls and Environmental Noise Barriers

## **CC-RMP-00400 Requirements for Measuring and Pricing of Road Restraint Systems (Vehicle and Pedestrian)**

Definition  
Safety Barrier System  
Transitions  
Terminals

Delivery of Materials and Equipment for Maintenance Purposes  
Temporary Safety Barriers  
Vehicle Parapet Systems  
Pedestrian Parapets, Pedestrian Guardrails and Handrails  
Anti-Glare Screens

**CC-RMP-00500 Requirements for Measuring and Pricing of Drainage and Service Ducts**

Definitions  
Drains, Sewers, Piped Culverts and Service Ducts (excluding Filter Drains, Narrow Filter Drains & Fin Drains)  
Filter Drains  
Fin Drains and Narrow Filter Drains  
Connections  
Chambers and Gullies  
Headwalls and Outfall Works  
Headwalls and Revetments  
Soft Spots and Other Voids  
Supports Left in Excavation  
Drainage and Service Ducts in Structures (including Reinforced Earth Structures and Anchored Earth Structures)  
Filling to Pipe Bays and Verges on Bridges  
Renewal, Raising or Lowering Covers and Gratings on Existing Chambers and Gullies  
Remove from Store and Reinstall Chamber Covers and Gully Gratings and Frames  
Grouting up of Existing Drains, Sewers, Piped Culverts and Service Ducts  
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**CC-RMP-00600 Requirements for Measuring and Pricing of Earthworks**

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Excavation  
Excavation in Hard Material  
Processing of Unacceptable Material Class U1  
Deposition of Fill  
Disposal of Material  
Imported Fill  
Compaction of Fill  
Soil Improvement  
Geotextiles  
Soft Spots and Other Voids

Disused Sewers, Drains, Cables, Ducts, Pipelines and the Like Occurring at Formation or Sub-formation Level; Disused Basements, Cellars and the Like and Gullies

Supports Left in Excavation

Topsoiling and Storage of Topsoil

Grass Seeding and Turfing

Completion of Formation and Sub-formation

Lining of Watercourses

Clearing of Existing Ditches

Ground Improvement – Establishment of Dynamic Compaction Plant

Ground Improvement – Dynamic Compaction

Gabion Walling and Mattresses

Crib Walling

Filling and Caps to Mine Working, Well, Swallow Hole and the Like

Ground Anchorages & Soil Nails – Ground Anchorage & Soil Nail Plant

Ground Anchorages & Soil Nails

Ground Anchorages – Waterproofing Anchorage Boreholes

Instrumentation and Monitoring – Boring Plant

Instrumentation and Monitoring – Boring Holes

Instrumentation and Monitoring – Instrumentation

Instrumentation and Monitoring – Instrument Hut or Cabinet

Instrumentation and Monitoring – Monitoring Equipment

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Trial Pits

Breaking Up and Perforation of Redundant Pavement

Perforation of Redundant Slabs, Basements and the Like

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Pavement

Regulating Course

Surface Treatment

Bond Coat

Cold Milling

Repave Recycle Process

Reinstatement of Paved Areas

Repairs to Existing Concrete Carriageway

Geotextiles and Geotextile-related products

Repair Systems

**CC-RMP-01100 Requirements for Measuring and Pricing of Kerbs, Footways and Paved Areas**

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

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

Remove from Store and Relay Kerbs, Channels, Edgings and Combined Drainage and Kerb Blocks

Footways and Paved Areas

Remove from Store and Relay Paving Flags and Blocks

Steps

Remove from Store and Re-erect Street Furniture

**CC-RMP-01200 Requirements for Measuring and Pricing of Traffic Signs and Road Markings**

Traffic Signs

Remove from Store and Re-erect Traffic Signs

Road Markings

Retroreflecting Road Studs

Remove from Store and Re-install Retroreflecting Road Studs

Traffic Signal Poles

Traffic Signal Heads

Traffic Signal Pole Box

Push Button Unit

Remove from Store and Re-erect Traffic Signal Head

Pedestrian Crossings

Delineators

Permanent Bollards

Nosing Markers

Retroreflective Markers

**CC-RMP-01300 Requirements for Measuring and Pricing of Road Lighting Columns and Brackets**

Road Lighting Columns, Brackets and Wall Mountings

Remove from Store and Re-erect Road Lighting Columns, Brackets and Wall Mountings

**CC-RMP-01400 Requirements for Measuring and Pricing of Electrical Work for Road Lighting and Traffic Signs**

Locating Buried Road Lighting and Traffic Signs Cable

Cabling

Cable Joints and Terminations

Feeder Pillars

Earth Electrodes

Remove from Store and Re-erect Feeder Pillars

**CC-RMP-01500 Requirements for Measuring and Pricing of Motorway Communications**

Locating Buried Communications Cable  
Communications Cabling and Trench for Communication Cable  
Communications Cable Joints and Terminations  
Communications Equipment  
Remove from Store and Re-install Communications Cabling and Equipment  
Loop Detector Installations  
Site Records  
Stage 2 Commissioning of Cable  
Modification of Existing Communications Equipment

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Precast Concrete Piles  
Cast-in-place Piles  
Reinforcement for Cast-in-place Piles  
Steel Bearing Piles  
Proof Loading of Piles  
Steel Sheet Piles  
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Diaphragm Walls  
Secant Pile Walls  
Contiguous Bored Pile Walls  
Reinforcement for Embedded Retaining Walls  
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King Posts  
Reinforcement for King Post Piles  
King Post Walling

**CC-RMP-01700 Requirements for Measuring and Pricing of Structural Concrete**

In Situ Concrete  
Precast Concrete  
Surface Finish of Concrete – Formwork  
Surface Finish of Concrete – Patterned Profile Formwork  
Steel Reinforcement for Structures  
Reinforcement for Reinforced and Anchored Earth Structures  
In Situ Post-tensioned Prestressing for Structures



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- CC-RMP-01800**     **Requirements for Measuring and Pricing of Structural Steelwork**  
Fabrication and Erection of Steelwork  
Fabrication of Steelwork  
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Miscellaneous Metalwork  
Corrugated Steel Buried Structures  
Metal Facing Units for Reinforced Earth Structures
- CC-RMP-01900**     **Requirements for Measuring and Pricing of Protection of Steelwork Against Corrosion**  
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Maintenance and Painting of Steelwork
- CC-RMP-02000**     **Requirements for Measuring and Pricing of Waterproofing for Structures**  
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Surface Impregnation and Coatings of Concrete  
Removal of Existing Waterproofing
- CC-RMP-02100**     **Requirements for Measuring and Pricing of Bridge Bearings**  
Bearings
- CC-RMP-02300**     **Requirements for Measuring and Pricing of Bridge Expansion Joints and Sealing of Gaps**  
Bridge Deck Expansion Joints  
Sealing of Gaps
- CC-RMP-02400**     **Requirements for Measuring and Pricing of Brickwork, Blockwork and Stonework**  
Brickwork  
Blockwork and Stonework  
Remove from Store and Relay Brickwork, Blockwork and Stonework  
Masonry Repointing
- CC-RMP-02500**     **Requirements for Measuring and Pricing of Special Structures**  
Special Structures
- CC-RMP-02700**     **Requirements for Measuring and Pricing of Watermains, Utilities and Accommodation Works**  
Watermains  
Connections  
Pipe Fittings  
Valves and Penstocks  
Chambers  
Thrust Blocks  
Utilities (other than Watermains) and Accommodation Works

**CC-RMP-02800      Requirements for Measuring and Pricing of Trenchless Installation of Road Drainage and Service Ducts**

Establishment and Removal of Plant

Drain and Service Ducts

Lateral Connections to Pipes to be Replaced by On-line Replacement

**CC-RMP-02900      Requirements for Measuring and Pricing of CCTV Survey of Road Drainage Systems**

CCTV Survey of Road Drainage Systems

## 2. Definitions

1. The Requirements for Measuring and Pricing (RMP) in TII Publications (Standards) is published as a collective group of documents under the Construction and Commissioning activity within the TII Publications system. Unless the context otherwise requires within the RMP, the following words and expressions shall have the meanings hereby respectively assigned to them, that is to say:
  - (a) “Conditions of Contract” means the Conditions included in the Contract;
  - (b) words and expressions to which meanings are assigned in the Conditions of Contract have the same meanings in the RMP;
  - (c) words and expressions to which meanings are assigned in the Specification and Drawings referred to in the Conditions of Contract have the same meanings in the RMP;
  - (d) “Bill of Quantities” means a list of items giving brief identifying descriptions and estimated quantities of work comprised in the execution of the works to be performed;
  - (e) “Preliminary Item” means an item in respect of works, general obligations and risks antecedent to or involved in the execution of the Contract and which is set out in a “Preliminaries” section of the Bill of Quantities;
  - (f) “Finishings” means the miscellaneous surfacings, furniture and ancillary features that are added to any part of a structure;
  - (g) “Existing Ground Level” means the level of the ground before any work under the Contract is carried out;
  - (h) “Hard Material” means one or both of the following:
    - (i) material so designated in the Preambles to Bill of Quantities;
    - (ii) material which requires the use of blasting, breakers or splitters for its removal but excluding individual masses less than 0.20 cubic metres
  - (i) “Culvert” means an enclosed channel or pipe designated as a culvert in the Contract;
  - (j) “Type of Pavement” means one of the following designs of pavement
    - (i) flexible;
    - (ii) flexible composite;
    - (iii) rigid;
  - (k) “Designated Outline” means the designated outline shown on the Drawings;
  - (l) “Drawings” means “drawings in the Contract”.
2. Note: A Designated Outline is shown as enclosing each structure to be designed by the Contractor and each structure for which a choice of designs is offered. The Designated Outline delineates the limits of measurement of work to be included for each structure (with the exception of those works scheduled as not to be included).

### 3. General Principles

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|---|----------|--|
| <b>Requirements for Measuring and Pricing (RMP)</b> | <b>1</b> | <p>(a) The Requirements for Measuring and Pricing (RMP) is intended for use for road contracts based on the Public Works Contract for Civil Engineering Works Designed by the Employer or the Public Works Contract for Minor Building and Civil Engineering Works Designed by the Employer</p> <p>(a) The RMP is based on the SPW and the SCDs within TII Publications and on the principle that full details of construction requirements are provided in the Contract. Additions or amendments to the SPW or the SCDs which are not adequately covered by the RMP may necessitate appropriate amendment to suit, which shall only be allowed under an Approved Departure from Standards. Provision is made in Section 4 of this document, under Preambles to Bill of Quantities, "Amendments to the Requirements for Measuring and Pricing (RMP)" to accommodate such amendments.</p> <p>(b) The omission or amendment of any applicable requirement within the RMP shall only be allowed under an Approved Departure from Standards.</p> |
| <b>Bill of Quantities</b>                           | <b>2</b> | <p>In the Bill of Quantities 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 "Item coverage" in the different parts of the RMP, in Section 4 of this document, under Preambles to Bill of Quantities and amendments. The nature and extent of the work to be performed is to be ascertained by reference to the Works Requirements and Contract Conditions.</p>  |
| <b>Itemisation – Groups and Features</b>            | <b>3</b> | <p>Each item description is to be consistent with and be compounded from one or more of the Groups listed under the marginal headings "Itemisation" within the different parts of the RMP incorporating amendments introduced in the Preambles to the Bill of Quantities. An item description may contain Features from as many Groups as necessary to identify the work required, but may include only one Feature from any one Group.</p>  |
| <b>Items in the Bill of Quantities</b>              | <b>4</b> | <p>The Bill of Quantities, unless expressly stated otherwise in the Contract is to contain all those items compounded in accordance with the foregoing paragraph 3 required to comprise the Works.</p>   |

## 4. Preparation of Bill of Quantities

**Subdivision of Bill of Quantities**      **1**      The Bill of Quantities is to be divided as appropriate into separate levels of identification, in the sequence set down in Table 1.

Note: The use of Table 1, level 4 sub-heading is optional dependent on the chosen method of billing described in Paragraph 2(c) of Section 3 of this document, General Principles.

**Quantities**      **2**      Quantities shall be expressed in whole numbers except for units of measurement of tonnes and hectares in which case the quantities shall be to three decimal places.

**Units of Measurement**      **3**      The following abbreviations shall be used for the units of measurement

Unit	Abbreviation	Unit	Abbreviation
Millimeter	mm	sum	sum
metre	m	number	no
square millimetre	mm <sup>2</sup>	hour	h
square metre	m <sup>2</sup>	week	wk
hectare	ha	item	item
cubic metre	m <sup>3</sup>	vehicle week	v/wk
kilogramme	kg	man hour	m/hr
tonne	t	day	day

**Items in the Bill of Quantities**      The Bill of Quantities, unless expressly stated otherwise in the Contract is to contain all those items compounded in accordance with the foregoing paragraph 3 required to comprise the Works

**Special Preliminary Items**      **4**      Provision is made in Table 1 for the inclusion of “Special Preliminary” items in the Bill of Quantities.

“Special Preliminary” items are not included in the different parts of the RMP as their use is intended to be restricted and particular to a given Contract.

“Special Preliminary” items shall not be used for temporary works, cofferdams, accesses, advance operations and the like unless the work or operation is unusual in relation to the Works, and:

- a) the magnitude of such work, not separately measured, is such as to be disproportionately high in cost in relation to the measured work with which it is associated; or
- b) an operation, not separately measured, is required to be executed far in advance or after the main measured operation to which it relates.

The inclusion of “Special Preliminary” items in a Contract shall be entirely at the discretion of the Employer. Whether a “Special Preliminary” item is included in the Bill of Quantities or not shall in no way relieve the Contractor of his obligations under the Contract.

**Alternative Types of Pavement**      **5**      Where the Contract provides for Alternative Types of Pavement a separate Bill of Quantities is to be provided within CC-RMP-00600 Requirements for Measuring and Pricing of Earthworks of the Roadworks General Bill; and CC-RMP-00700 Requirements for Measuring and Pricing of Pavements of the Main Carriageway, Interchanges and Side Roads Bills as appropriate, for each Type of Pavement permitted by the Contract.

Immediately preceding the separate sets of alternative Bills in CC-RMP-00600 Requirements for Measuring and Pricing of Earthworks and CC-RMP-00700 Requirements for Measuring and Pricing of Pavements respectively an Index (Table 2) is to be provided of the Alternative Types of Pavement.

Provision is to be made for each Bill of Quantities in CC-RMP-00600 Requirements for Measuring and Pricing of Earthworks of the Roadworks General Bill and in CC-RMP-00700 Requirements for Measuring and Pricing of Pavements of the Main Carriageway, Interchanges and Side Roads Bills to be priced and included as appropriate in the Tender.

<b>Alternative Types of Safety Fence</b>	<b>6</b>	<b>Not used</b>
<b>Structures where a choice of design is offered</b>	<b>7</b>	<p>Where the Contract provides for a structure designed by the Contractor to be constructed as an alternative to the structure which has been designed by the Employer, a separate Bill of Quantities is to be provided for each of the two construction procedures permitted by the Contract.</p> <p>Each of the two individual Bills of Quantities is to be provided in accordance with the various parts of the RMP for all the works contained within the Designated Outline (with the exception of those works scheduled as not to be included). For the structure designed by the Contractor the Bill of Quantities is to comprise a single item in accordance with CC-RMP-02500. The Bill for the structure designed by the Employer is to be compiled in accordance with the appropriate part of the RMP. Those works scheduled as not to be included in either of these alternative Bills of Quantities shall be included by the Employer in other Bills compiled in accordance with the appropriate document.</p> <p>Provision is to be made for only the one Bill of Quantities which relates to the form of construction elected to be constructed by the Contractor to be priced and included in the initial Contract Sum.</p> <p>Immediately preceding the separate alternative Bills of Quantities an Index (Table 4) is to be provided for the alternative forms of construction permitted by the Contract.</p>
<b>Structures designed by the Contractor</b>	<b>8</b>	<p>Where the Contract provides only for a structure designed by the Contractor to be constructed a Bill of Quantities comprising a single item for all the works within the Designated Outline (with the exception of those works scheduled as not to be included) is to be provided in accordance with CC-RMP-02500. Those works scheduled as not to be included in this single item are to be included by the Employer in other Bills compiled in accordance with the appropriate document.</p> <p>Earthworks within the Designated Outlines shall not be included by the Employer in the Earthworks Schedules.</p>
<b>Preambles to the Bill of Quantities</b>	<b>9</b>	<p>The matters set out under the heading "Preambles to Bill of Quantities" (1-17) hereafter are always to be included as a preamble to the Bill of Quantities. Additional numbered preambles may be included as necessary.</p>

**TABLE 1**

Level 1 Division	Level 2 Construction Heading	Level 3 RMP Headings		Level 4 Sub-Headings	Notes
(i) Preliminaries	Preliminaries	CC-RMP-00100	Preliminaries		Special Preliminaries should be inserted under level 3
(ii) Roadworks	Roadworks General	CC-RMP-00200	Site Clearance		Hedgebanks and the like should be inserted under level 3 CC-RMP-00600
		CC-RMP-00300	Fencing		
		CC-RMP-00400	Safety Barriers and Pedestrian Guardrails		
		CC-RMP-00600	Earthworks		Cycle tracks and the like should be inserted under level 3 CC-RMP-0 1100
	Main Carriageway	CC-RMP-00500	Drainage and Service Ducts		
		CC-RMP-00700	Pavements		
		CC-RMP-01100	Kerbs, Footways and Paved Areas		
	Interchanges	CC-RMP-00500	Drainage and Service Ducts		Cycle tracks and the like should be inserted under level 3 CC-RMP-01100
		CC-RMP-00700	Pavements		
		CC-RMP-01100	Kerbs, Footways and Paved Areas		
	Side Roads	CC-RMP-00500	Drainage and Service Ducts		Cycle tracks and the like should be inserted under level 3 CC-RMP-01100
		CC-RMP-00700	Pavements		

Level 1 Division	Level 2 Construction Heading	Level 3 RMP Headings		Level 4 Sub-Headings	Notes
		CC-RMP-01100	Kerbs, Footways and Paved Areas		
	Signs, Motorway Communications and Lighting	CC-RMP-01200	Traffic Signs and Road Markings		
		CC-RMP-01300	Road Lighting Columns and Brackets		
		CC-RMP-01400	Electrical Work for Road Lighting and Traffic Signs		
		CC-RMP-01500	Motorway Communications		



Level 1 Division		Level 2 Construction Heading	Level 3 RMP Headings		Level 4 Sub-Headings	Notes
Division	Sub-Division					
(iii) Structures	Structure in form of Bridge or Viaduct; Name or Reference	Special Preliminaries				Special Preliminaries should be inserted as a separate construction heading under level 2
		Piling	CC-RMP-01600	Piling and Diaphragm Walling		
		Substructure-End Supports	CC-RMP-00500	Drainage and Service Ducts		To include wingwalls and paved areas beneath structures
			CC-RMP-00600	Earthworks		
			CC-RMP-01100	Kerbs, Footways and Paved Areas		
			CC-RMP-01700	Structural Concrete		
			CC-RMP-01800	Structural Steelwork		
			CC-RMP-01900	Protection of Steelwork Against Corrosion		
CC-RMP-02300	Bridge Expansion Joints and Sealing of Gaps					
CC-RMP-02400	Brickwork, Blockwork and Stonework					

Level 1 Division		Level 2 Construction Heading	Level 3 RMP Headings		Level 4 Sub-Headings	Notes
Division	Sub-Division					
		Substructure - Intermediate Supports	As for End Supports		As for End Supports	To include piers and columns
		Substructure - Main Span Substructure - Approach Spans				
		Superstructure - Main Span	CC-RMP-00500	Drainage and Service Ducts		
		Superstructure - Approach Spans	CC-RMP-01700	Structural Concrete		
			CC-RMP-01800	Structural Steelwork		
			CC-RMP-01900	Protection of Steelwork Against Corrosion		
		Superstructure - Arch Ribs	CC-RMP-02300	Bridge Expansion Joints and Sealing of Gaps		
			CC-RMP-02400	Brickwork, Blockwork and Stonework		
		Finishings	CC-RMP-00400	Safety Barriers and Pedestrian Guardrails		Pavements, footways and the like to be included here if no Roadworks Bill of Quantities
			CC-RMP-00700	Pavements		

Level 1 Division		Level 2 Construction Heading	Level 3 RMP Headings		Level 4 Sub-Headings	Notes
Division	Sub-Division					
			CC-RMP-01100	Kerbs, Footways and Paved Areas		
			CC-RMP-02000	Waterproofing for Structures		
			CC-RMP-02200	Parapets		
			CC-RMP-02400	Brickwork, Blockwork and Stonework		
	Retaining Wall, Culvert, Subway, Gantry, Large Headwall, Gabion Wall, Diaphragm Wall, Pocket Type Reinforced Brickwork Retaining Wall and the Like; Name or Reference	Special Preliminaries				Special Preliminaries should be inserted as a separate construction heading under level 2
		Main Construction	CC-RMP-00500	Drainage and Service Ducts		
			CC-RMP-00600	Earthworks		
			CC-RMP-01100	Kerbs, Footways and Paved Areas		

Level 1 Division		Level 2 Construction Heading	Level 3 RMP Headings		Level 4 Sub-Headings	Notes
Division	Sub-Division					
			CC-RMP-01600	Piling and Diaphragm Walling		
			CC-RMP-01700	Structural Concrete		
			CC-RMP-01800	Structural Steelwork		
			CC-RMP-01900	Protection of Steelwork Against Corrosion		
			CC-RMP-02300	Bridge Expansion Joints and Sealing of Gaps		
			CC-RMP-02400	Brickwork, Blockwork and Stonework		
		Finishings	CC-RMP-00400	Safety Barriers and Pedestrian Guardrails		Pavements, footways and the like to be included here if no Roadworks Bill of Quantities
			CC-RMP-00600	Earthworks		
			CC-RMP-00700	Pavements		
			CC-RMP-01100	Kerbs, Footways and Paved Areas		
			CC-RMP-02000	Waterproofing for Structures		
			CC-RMP-02200	Parapets		

Level 1 Division		Level 2 Construction Heading	Level 3 RMP Headings		Level 4 Sub-Headings	Notes
Division	Sub-Division					
			CC-RMP-02400	Brickwork, Blockwork and Stonework		
(iv) Structures Where a Choice of Designs is Offered	Structure Designed by the Employer; Name or Reference	To comply with the Principles set down above for Structures				To include works within Designated Outlines with the exception of works scheduled as not to be included. This division is not to be used where the Contract provides only for a structure designed by the Contractor
	Structure Designed by the Contractor; Name or Reference					
(v) Structures Designed by the Contractor	Structure; Name or Reference					To include works within Designated Outlines with the exception of works scheduled as not to be included.
(vi) Service Areas		Roadworks Structures	To comply with the Principles set down above for Roadworks and Structures		To comply with the Principles set down above for Roadworks and Structures	
(vii) Maintenance Compounds		Roadworks Structures				

Level 1 Division		Level 2 Construction Heading	Level 3 RMP Headings	Level 4 Sub-Headings	Notes
Division	Sub-Division				
(viii)	Accommodation Works	Interests; Name or Reference			
(ix)	Works for Statutory or Other bodies	Body; Name or Reference	To comply with the Principles set down above for Roadworks and Structures	To comply with the Principles set down above for Roadworks and Structures	

**Table 2**

(This Table 2 is an example of the introduction and index to be inserted as a separate page immediately preceding each set of the separate Bills of Quantities included within CC-RMP-00600: Requirements for Measuring and Pricing of Earthworks in the Roadworks General Bill and CC-RMP-00700: Requirements for Measuring and Pricing of Pavements in the Main Carriageway, Interchanges and Side Roads Bills, to cover the alternative Types of Pavement permitted in the Contract.)

A separate Bill of Quantities is provided for each Alternative Type of Pavement permitted by the Contract. The tenderer shall price, extend and carry to the collection in the Bill of Quantities for each Type of Pavement permitted in the Contract.		
<b>Index</b>		
Type of Pavement	Bill No.*	Page(s)
Flexible	(6A) (7A)	
Flexible Composite	(6B) (7B)	
Rigid	(6C) (7C)	

*\*See Section 4 of this document, Item 5 "Alternative Types of Pavement"*

**Table 3**

<b>Not Used</b>
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**Table 4**

(This Table 4 is an example of the introduction and index to be inserted as a separate page immediately preceding the separate Bills of Quantities included within the Bill for Structures Where a Choice of Designs is Offered (as defined under paragraph 7 of the Preparation of Bill of Quantities).)

Bill No. .... Structures Where a Choice of Designs is Offered  A separate Bill of Quantities is provided for each of the two construction procedures permitted by the Contract. Notwithstanding the provisions of paragraph 4 of the Preambles to Bill of Quantities, the tenderer shall price, extend and carry to the collection of Bill No.... : Structures Where a Choice of Designs is Offered, only that Bill of Quantities appropriate to the form of construction he has elected to construct.		
<b>Index</b>		
Type of Structure	Structure No.	Bill No.
Structure Designed by the Employer		....A
Structure Designed by the Contractor		....B

(Repeat for each structure)

## Preambles to Bill of Quantities

### General Directions

- 1 The Requirements for Measuring and Pricing (RMP) in TII Publications (Standards) is published as a collective group of documents under the Construction and Commissioning activity within the TII Publications system. The Bill of Quantities has been prepared in accordance with the RMP.
  
- 2 In the Bill of Quantities 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 "Item Coverage" in the different parts of the RMP, these Preambles and the amendments to the RMP immediately following these Preambles. The nature and extent of the work is to be ascertained by reference to the Works Requirements and Contract Conditions. The rates and prices entered in the Bill of Quantities 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 costs in connection therewith.
  - (ii) The supply of materials, goods, storage and costs in connection therewith including delivery to Site. Taking delivery of materials and goods supplied by others, unloading, storage, and costs in connection therewith.
  - (iii) Plant and costs in connection therewith.
  - (iv) Fixing, erecting and installing or placing of materials and goods in position.
  - (v) Temporary Works.
  - (vi) The effect on the phasing of the Works or any element of the Works to the extent set forth or reasonably implied in the documents on which the tender is based.
  - (vii) General obligations, liabilities and risks involved in the execution of the Works set forth or reasonably implied in the documents on which the tender is based.
  - (viii) Establishment charges, overheads and profit.
  - (ix) Waste.
  - (x) Attendance and transport for sampling and testing carried out by the Employer's Representative, tests carried out by the Contractor in accordance with the particular requirements of Appendix 1/5, supplying results of tests carried out by the Contractor and providing test certificates.
  - (xi) Supply and delivery of samples to the Employers Representative in accordance with the particular requirements of Appendix 1/6.
  - (xii) Complying with Quality Assurance schemes and providing certificates of conformity.
  - (xiii) Preparation and supply of detailed working drawings.
  - (xiv) Awaiting approvals and or consents.

### Measurement

- 3 (i) The measurement of work shall be computed net from the dimensions stated in the Contract unless otherwise stated in the RMP.  
Where the tender documents provide for the Contractor to select the type of buried structure (where the structure is not within Designated Outlines) to be constructed then the measurement of all work in each area so affected shall be based upon the thinnest pavement construction and surfacing over structures permitted by the Contract



		in that area for the particular type of buried structure the Contractor has elected to construct.
<b>Pricing of Items</b>	<b>4</b>	(i) Each individual item shall have a rate or price entered against it. Rates and prices shall be expressed to two decimal places Reserved Sums and Contract Sums for Specialists will be provided by the Contracting Authority. Prices entered for attendances and management of specialist works will remain as tendered, even after the Reserved Sums are replaced with actual sums following tendering of the specialist works. These prices may not be less than zero.
<b>Alternative Specified Materials, Designs and Options Within Types of Pavement</b>	<b>5</b>	<b>Not used</b>
<b>Privately and Publicly owned Services or Supplies</b>	<b>6</b>	The information in the Contract as to the whereabouts of existing services and mains is believed to be correct but the Contractor shall not be relieved thereby of his obligations under the Contract. The Contractor shall include in his rates and prices for locating and taking measures for the support and full protection of pipes, cables and other apparatus during the progress of the Works, obtaining the written consent of the appropriate authority to interrupt the service or supply and for keeping the Employer's Representative informed of all arrangements he makes with the owners of privately owned services or supplies, Statutory Undertakers and Public Authorities as appropriate.
<b>Labours</b>	<b>7</b>	<b>Not used</b>
<b>Roadworks Overall Requirements</b>	<b>8</b>	The Contractor shall allow in his 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 construction plant, and general requirements for sub-bases and bases.
<b>Work within and below any water condition</b>	<b>9</b>	The Contractor shall allow in his prices for any items of structures designed by the Contractor provided under CC-RMP-02500, for taking measures required to execute work in any condition where there is a presence of any type of water.
<b>Dealing with Flow</b>	<b>10</b>	The Contractor shall allow in his rates and prices for taking measures to deal with the existing flow of water, sewage and the like.
	<b>11</b>	<b>Not used</b>
<b>Site Limitations and Constraints</b>	<b>12</b>	The Contractor shall allow in his rates and prices for complying with any limitations and constraints on the use of the Site.
<b>Hard Material</b>	<b>13</b>	For the purposes of the Contract the following are designated as Hard Material in accordance with Section 2 Definitions, paragraph 1(i)(i):  (a) .....* strata;  (b) those deposits designated by limits shown on the Drawings.

		(c) existing pavements, footways, paved areas (but excluding unbound materials) and foundations in masses in excess of 0.20 cubic metres.
<b>Equivalent Products and Materials</b>	<b>14</b>	(i) Where the Contractor offers an equivalent product or material in place of the one identified or specified, which is accepted for incorporation into the Works by the Employer's Representative, then the rates and prices in the Bill of Quantities shall be deemed to include for all the obligations and costs associated with the incorporation of the equivalent into the Works, including design, provision of data and drawings, certificates, awaiting approvals, resubmissions and modifications and amendments to the Works.  (ii) Unless specifically stated to the contrary in the Contract the measurement of the Works affected by the incorporation of the equivalent products and materials shall be based on the Tender documents and not on the Works as amended and completed to incorporate the equivalent products and materials.
<b>Permanent Works Designed by the Contractor</b>	<b>15</b>	Where the Contract requires part(s) of the Works to be designed by the Contractor, the rates and prices in the Bill of Quantities shall include for all the obligations and costs associated with the incorporation of the Contractor's design into the Works, including design, provision of data and drawings, certificates, awaiting approvals, resubmissions and modifications and amendments to the Works.
<b>Structures Designed by the Contractor</b>	<b>16</b>	Earthworks within the Designated Outlines shall not be included by the Employer in the earthworks schedules.
<b>Alterations for Road Authorities</b>	<b>17</b>	<b>Not Used</b>
<b>†Amendments to the Requirements for Measuring and Pricing</b>	<b>18</b>	Amendments to the Requirements for Measuring and Pricing are not advisable and in any case are only acceptable under an Approved Departure from TII, as noted under Section 3 General Principles.

[Notes to compiler:

The Preambles to Bill of Quantities (duly completed) must be reproduced unaltered and bound in the Bill of Quantities.

\*To be completed by compiler as appropriate.

† Where an Approved Departure has been obtained from TII to amend any part of the RMP in accordance with Section 3 General Principles of CC-RMP-00010 – Introduction to the Requirements for Measuring and Pricing this preamble should be the last numbered preamble and inserted immediately prior to the amendments.]

## **5. References**

Refer to Chapter 1.





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