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

About TII Publications
TII maintains an online suite of technical publications, which is managed through the TII Publications website. The contents of TII Publications is clearly split into ‘Standards’ and ‘Technical’ documentation. All documentation for implementation on TII schemes is collectively referred to as TII Publications (Standards), and all other documentation within the system is collectively referred to as TII Publications (Technical).

Document Attributes
Each document within TII Publications has a range of attributes associated with it, which allows for efficient access and retrieval of the document from the website. These attributes are also contained on the inside cover of each current document, for reference.

<table>
<thead>
<tr>
<th>TII Publication Title</th>
<th>Requirements for Measuring and Pricing of Brickwork, Blockwork and Stonework</th>
</tr>
</thead>
<tbody>
<tr>
<td>TII Publication Number</td>
<td>CC-RMP-02400</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity</th>
<th>Construction &amp; Commissioning (CC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stream</td>
<td>Requirements for Measuring and Pricing (RMP)</td>
</tr>
<tr>
<td>Publication Date</td>
<td>October 2016</td>
</tr>
<tr>
<td>Document Number</td>
<td>02400</td>
</tr>
<tr>
<td>Historical Reference</td>
<td>Series MM 2400</td>
</tr>
</tbody>
</table>

TII Publications Website
This document is part of the TII publications system all of which is available free of charge at [http://www.tiipublications.ie](http://www.tiipublications.ie). For more information on the TII Publications system or to access further TII Publications documentation, please refer to the TII Publications website.

TII Authorisation and Contact Details
This document has been authorised by the Director of Professional Services, Transport Infrastructure Ireland. For any further guidance on the TII Publications system, please contact the following:

Contact: Standards and Research Section, Transport Infrastructure Ireland
Postal Address: Parkgate Business Centre, Parkgate Street, Dublin 8, D08 DK10
Telephone: +353 1 646 3600
Email: infoPUBS@tti.ie
TII Publications

Activity: Construction & Commissioning (CC)
Stream: Requirements for Measuring and Pricing (RMP)
TII Publication Title: Requirements for Measuring and Pricing of Brickwork, Blockwork and Stonework
TII Publication Number: CC-RMP-02400
Publication Date: October 2016
Set: Standards

Contents

1. Brickwork, Blockwork and Stonework ................................................................. 1
2. References ........................................................................................................... 6
1. **Brickwork, Blockwork and Stonework**

**Brickwork**

**Units**

1. The units of measurement shall be:
   (i) brickwork ............... square metre.
   (ii) copings, string courses and the like ............. linear metre.

**Measurement**

2. The measurement shall be the superficial area of brickwork required by the Contract. No deduction shall be made for openings of 0.10 square metre or less.

   The measurement of copings, string courses and the like shall be the length of the work required by the Contract.

   Facings shall be measured as extra over brickwork except where brickwork is built entirely of facings.

**Itemisation**

3. Separate items shall be provided for brickwork in accordance with Section 3 of CC-RMP-00010, paragraphs 3 and 4 and the following:

<table>
<thead>
<tr>
<th>Group</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1 Brickwork</td>
</tr>
<tr>
<td></td>
<td>2 Stonework</td>
</tr>
<tr>
<td>II</td>
<td>1 Copings, string courses and the like of different sizes</td>
</tr>
<tr>
<td>III</td>
<td>1 Different types of bricks</td>
</tr>
<tr>
<td>IV</td>
<td>1 Different thicknesses</td>
</tr>
<tr>
<td>V</td>
<td>1 Different bonds</td>
</tr>
<tr>
<td>VI</td>
<td>1 Different types of mortar</td>
</tr>
<tr>
<td>VII</td>
<td>1 Curved on pan</td>
</tr>
<tr>
<td>VIII</td>
<td>1 With a battered face</td>
</tr>
<tr>
<td>IX</td>
<td>1 In walls</td>
</tr>
<tr>
<td></td>
<td>2 In facework to concrete</td>
</tr>
<tr>
<td></td>
<td>3 In arches</td>
</tr>
<tr>
<td></td>
<td>4 In alteration work</td>
</tr>
</tbody>
</table>

**Brickwork, Copings, String Courses and the Like**

4. The items for brickwork, copings, string courses and the like shall in accordance with the Preambles to Bill of Quantities General Directions include for:

**Item Coverage**

(a) bedding, jointing, pointing, raking out, wetting and fair-faced work, including rough and fair cutting;

(b) plinths, corbels, bull-noses, chases, rebates, quoins and the like, grouting;

(c) ties, dowels, cramps, joggles and the like, including sinkings, mortices and running in;

(d) bonding into existing work;

(e) forming cavity;

(f) reinforcement (CC-RMP-01700 paragraph 25);

(g) cavity filling between the brickwork and the backing;

(h) building in pipes, holdfasts, bolts and the like and forming small openings;
(i) sample panels;
(j) damp proof courses and membranes;
(k) removing loose material from the backing and washing clean;
(l) curing and protection;
(m) admixtures and additives.

**Blockwork and Stonework**

**Units**

The units of measurement shall be:

(i) blockwork and stonework ..........cubic metre.
(ii) copings, string courses and the like ............ linear metre.
(iii) individual blocks, features or stones ............... number.

**Measurement**

The measurement of blockwork and stonework shall be the volume of the work excluding the volume of the cavity and associated filling.

The measurement of copings, string courses and the like shall be the length of the work required by the Contract.

No deduction shall be made from the measurement for holes or voids of 0.15 cubic metre or less.

**Itemisation**

Separate items shall be provided for blockwork and stonework in accordance with Section 3 of CC-RMP-00010, paragraphs 3 and 4 and the following:

<table>
<thead>
<tr>
<th>Group</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1 Blockwork</td>
</tr>
<tr>
<td></td>
<td>2 Stonework</td>
</tr>
<tr>
<td>II</td>
<td>1 Copings, string courses and the like of different sizes</td>
</tr>
<tr>
<td></td>
<td>2 Individual blocks, features or stones of different sizes and shape</td>
</tr>
<tr>
<td>III</td>
<td>1 Different types of construction</td>
</tr>
<tr>
<td>IV</td>
<td>1 Different materials</td>
</tr>
<tr>
<td>V</td>
<td>1 Different types of mortar</td>
</tr>
<tr>
<td>VI</td>
<td>1 Curved on plan</td>
</tr>
<tr>
<td>VII</td>
<td>1 With a battered face</td>
</tr>
<tr>
<td>VIII</td>
<td>1 In walls</td>
</tr>
<tr>
<td></td>
<td>2 In facework to concrete</td>
</tr>
<tr>
<td></td>
<td>3 In arches</td>
</tr>
<tr>
<td></td>
<td>4 In alteration work</td>
</tr>
<tr>
<td>IX</td>
<td>1 Plastering and finishes</td>
</tr>
</tbody>
</table>

**Blockwork, Stonework, Copings, String Courses and the Like, Individual Blocks, Features or Stones**

The items for blockwork, stonework, copings, string courses and the like, individual blocks, features or stones shall in accordance with the Preambles to Bill of Quantities General Directions include for:

**Item Coverage**

(a) dressed stone facings including in situ dressing;
(b) setting, bedding, jointing, coursing, raking out, quoins, grouting, pointing, wetting and fair-faced work including rough and fair cutting;
(c) bonding into existing work;
(d) ties, dowels, cramps, joggles and the like including sinkings, mortices and running in;
(e) forming cavity;
(f) cavity filling between the blockwork or stonework and the backing;
(g) building in pipes, holdfasts, bolts and the like and forming small openings;
(h) sample panels;
(i) damp proof courses and membranes;
(j) removing loose material from the backing and washing clean;
(k) reinforcement (CC-RMP-01700 paragraph 25);
(l) grooves, rebates, recesses, stoolings and weatherings;
(m) marking for identification and delivery in any matching sequence;
(n) manufacturer’s certificate and supplying a copy to the Employer’s Representative;
(o) curing and protection;
(p) admixtures and additives;
(q) plastering and finishes.

Remove from Store and Relay Brickwork, Blockwork and Stonework

**Units**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) remove from store and relay blockwork and stonework</td>
<td>cubic metre.</td>
</tr>
<tr>
<td>(ii) remove from store and relay brickwork</td>
<td>square metre.</td>
</tr>
<tr>
<td>(iii) remove from store and relay copings, string courses and the like</td>
<td>linear metres.</td>
</tr>
<tr>
<td>(iv) remove from store and relay individual blocks, features or stones</td>
<td>number.</td>
</tr>
</tbody>
</table>

**Measurement**

The measurement of remove from store and relay blockwork and stonework shall be the volume of the work required by the Contract. No deduction shall be made for holes or voids of 0.15 cubic metre or less.

The measurement of remove from store and relay brickwork shall be the superficial area of re-used brickwork required by the Contract. No deductions shall be made for openings of 0.1 square metre or less.

The measurement of remove from store and relay copings, string courses and the like shall be the length of the work required by the Contract.

Brick facings shall be measured as extra over remove from store and relay brickwork except where the brickwork is built entirely of facings.

**Itemisation**

Separate items shall be provided for remove from store and relay brickwork, blockwork and stonework in accordance with Section 3 of CC-RMP-00010, paragraphs 3 and 4 and the following:

<table>
<thead>
<tr>
<th>Group</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1 Remove from store and relay brickwork</td>
</tr>
<tr>
<td></td>
<td>2 Remove from store and relay blockwork</td>
</tr>
<tr>
<td></td>
<td>3 Remove from store and relay stonework</td>
</tr>
</tbody>
</table>
II 1 Copings, string courses and the like of different sizes
   2 Individual blocks, features or stones of different sizes and shape

III 1 Different types of construction
     2 Different types of bond

IV 1 Different types of bricks
    2 Different materials

V 1 Different thicknesses

VI 1 Different types of mortar

VII 1 Curved on plan

VIII 1 With a battered face

IX 1 In walls
    2 In facework to concrete
    3 In arches
    4 In alteration work

X 1 Plastering and finishes

Remove from Store and Relay Brickwork, Blockwork or Stonework

12 The items for remove from store and relay brickwork, blockwork and stonework shall in accordance with the Preambles to Bill of Quantities General Directions include for:

Item Coverage

(a) loading, transporting from store unloading and positioning for relaying;
(b) replacing items damaged during the foregoing operation;
(c) modifications and new materials;
(d) brickwork, copings, string courses and the like (as this document paragraph 4);
(e) blockwork, stonework, copings, string courses and the like, individual blocks, features or stones (as this document paragraph 8).

Masonry Repointing

Units

13 The units of measurement shall be:

(i) area requiring repointing ............... square metre.

Measurement

14 The measurement shall be the superficial area of masonry required by the Contract. No deduction shall be made for openings of 0.10 square metre or less.

Itemisation

15 Separate items shall be provided for repointing in accordance with Section 3 of CC-RMP-00010, paragraphs 3 and 4 and the following:

<table>
<thead>
<tr>
<th>Group</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1 Blockwork</td>
</tr>
<tr>
<td></td>
<td>2 Stonework</td>
</tr>
<tr>
<td></td>
<td>3 Brickwork</td>
</tr>
<tr>
<td>II</td>
<td>1 Different types of bricks</td>
</tr>
<tr>
<td>III</td>
<td>1 Different mortar types</td>
</tr>
<tr>
<td>IV</td>
<td>1 Pozzolanic additives</td>
</tr>
<tr>
<td>V</td>
<td>1 Mortar colour</td>
</tr>
<tr>
<td>VI</td>
<td>1 Different joint thicknesses</td>
</tr>
</tbody>
</table>
Different joint finishes
Joint preparation
In walls
  In facework to concrete
  In arches
  In alteration work

Masonry Repointing 16
The items for masonry repointing and the like shall in accordance with the Preambles to Bill of Quantities General Directions include for:

Item Coverage
(a) bedding, jointing, repointing, raking out, wetting and fair-faced work, including rough and fair cutting;
(b) removing loose material from the backing and washing clean;
(c) curing and protection;
(d) admixtures and additives;
(e) sample panels;
(f) finishing;
(g) inserting pinning stones and holding in place by propping or other means;
(h) use of mechanical apparatus for sprayed mortar.
2. References

2.1 TII Publications (Standards) References

CC-RMP-00010 Introduction to the Requirements for Measuring and Pricing
CC-RMP-01700 Requirements for Measuring and Pricing of Structural Concrete