



Bonneagar Iompair Éireann
Transport Infrastructure Ireland

TII Publications



Notes for Guidance on the Method of Measurement for Road Works Series MMNG 500 - Drainage and Service Ducts

CC-GMP-00500

March 2015

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). This system replaces the NRA Design Manual for Roads and Bridges (NRA DMRB) and the NRA Manual of Contract Documents for Road Works (NRA MCDRW).

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. For migration of documents from the NRA and RPA to the new system, each current document was assigned with new outer front and rear covers. Apart from the covers, and inside cover pages, the documents contain the same information as previously within the NRA or RPA systems, including historical references such as those contained within NRA DMRB and NRA MCDRW.

Document Attributes

TII Publication Title	<i>Notes for Guidance on the Method of Measurement for Road Works Series MMNG 500 - Drainage and Service Ducts</i>
TII Publication Number	<i>CC-GMP-00500</i>

Activity	<i>Construction & Commissioning (CC)</i>
Stream	<i>Guidance for Measuring and Pricing (GMP)</i>
Document Number	<i>00500</i>

Document Set	<i>Standards</i>
Publication Date	<i>March 2015</i>
Historical Reference	<i>Series MMNG 500</i>

NRA DMRB and MCDRW References

For all documents that existed within the NRA DMRB or the NRA MCDRW prior to the launch of TII Publications, the NRA document reference used previously is listed above under 'historical reference'. The TII Publication Number also shown above now supersedes this historical reference. All historical references within this document are deemed to be replaced by the TII Publication Number. For the equivalent TII Publication Number for all other historical references contained within this document, please refer to the TII Publications website.

Series 500: Drainage and Service Ducts

1 **Tabulated Billing**

The billing of pipe runs of varying diameter and specification with their attendant adjustment items produces a lengthy Series 500 bill. It is suggested that a tabulated method is used as shown in the example overleaf. This method will reduce the repetition of item descriptions. This method can also be extended to manholes and chambers.

Where non-standard or small quantities exist they would be best billed in the traditional manner.

2 **Drainage and Service Ducts in Structures**

The extent of the quantities included in the item for drainage and service ducts to a structure and their interface with non-structural drainage should be clearly shown on the drawings. The quantities making up this item should either be scheduled in an appendix or on a drawing of the structure.

3 **Alternative Types of Pavement**

There is no requirement to provide separate drainage Bills of Quantities corresponding with each alternative Type of Pavement. Measurement of drainage must be based upon the thinnest construction permitted for any of the alternative Types of Pavement irrespective of the Type of Pavement chosen by the Contractor.

Tabulated Drainage Example

1. Drains and Sewers

Item	Description				Unit	Quantity	Rate	€
	A mm interna] diameter drain or sewer specified trench and bedding type or design group 'B' in trench depth to invert exceeding 2 metres, but not exceeding 4 metres, average depth to invert 'C' metres							
	Adjustment on this item for variation greater than 150mm above or below the average depth of C metres per 25mm of variation in excess of 150mm. Rate per metre 'D' (not to be extended)							
	'A'	'B'	'C'	'D'				
	dia	trench and bedding type or design group	ave. depth	adjust. rate				
21	150	A	2.625		m	54		
22	225	E	2.950		m	18		
23	300	C	2.875		m	78		
24	450	H	3.275		m	157		

2 Chambers

Item	Description					Unit	Quantity	Rate	€
	Specified chamber type 'A' with 'B', 'C' and frame depth to invert exceeding 'D' metres but not exceeding 'E' metres.								
	'A'	'B'	'C'	'D'	'E'				
	chamber type	cover grade	cover type	depth min.	range max.				
76	C	D400	cover	1	3	no	10		
77	C	C250	cover	1	3	no	60		
78	D	D400	cover	3	5	no	70		
79	D	C250	cover	3	5	no	55		



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