

1. Record Nr.	UNINA9911006609303321
Titolo	Sewers : replacement and new construction // edited by Geoffrey F. Read
Pubbl/distr/stampa	Boston, : Elsevier, 2004
ISBN	1-281-00896-6 9786611008963 0-08-048086-1
Descrizione fisica	1 online resource (588 p.)
Altri autori (Persone)	ReadGeoffrey F
Disciplina	628/.2
Soggetti	Sewerage - Design and construction Sanitary engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Table of Contents; About the Editor; Preface; 1 - Development of Sewerage Rehabilitation; 1.1 Introduction; 1.2 Sewerage systems; 1.3 General principles of sewerage; 1.4 Public utilities; 1.5 Outline design; 1.6 Development of public health engineering; 1.7 Sewer rehabilitation; 1.8 Strategy; 1.9 Environmental impact of sewer collapses; 1.10 Cost of sewer collapses; 1.11 Funding; Bibliography; 2 - New Construction; 2.1 Rates of flow - foul sewage; 2.2 Rates of flow - surface water sewerage; 2.3 Storm sewage overflows; 2.4 Soakaways; 2.5 Inverted syphons; 2.6 Manholes 2.7 Backdrop manholes2.8 Access to manholes; 2.9 Pipes; 2.10 Pumping stations and rising mains; 3 - Site Investigation; 3.1 Introduction; 3.2 Preliminary sources survey (the desk study); 3.3 Main ground exploration; 3.4 Construction investigations: records and feedback; 3.5 Geotechnical reports; References; 4 - Site Investigation and Mapping of Buried Assets; 4.1 Desktop study of existing plans; 4.2 Tracing of utilities on site; 4.3 Mapping of findings; 4.4 Site investigation - intrusive methods; 4.5 Conclusion; 5 - Traffic Management and Public Relations; 5.1 Introduction 5.2 The New Road and Street Works Act of 19915.3 Consultation; 5.4 Summary of steps in consultation and public relations process; 5.5 Signing and statutory requirements; 5.6 One-way working; 5.7 Give

and take system; 5.8 Priority signs; 5.9 Traffic control by Stop/Go boards; 5.10 Traffic control by portable traffic signals; 5.11 Signing and lane marking; 5.12 Maintenance; 5.13 Reinstatements; Bibliography; 6 - Aspects of Sewer Design; 6.1 Introduction; 6.2 Survey and scoping; 6.3 Preliminary design; 6.4 Hydraulic design; 6.5 Determination of sewer size; 6.6 Structural design; 6.7 Future developments; Bibliography; 7 - Open-Cut and Heading Construction; 7.1 Open-cut construction; 7.2 Pipe laying; 7.3 Sewers near existing structures; 7.4 Backfilling and reinstatement; 7.5 Heading construction; References; 8 - Tunnel Construction; 8.1 Introduction; 8.2 Geological/topographical aspects; 8.3 Linings; 8.4 Soft ground tunnelling; 8.5 Ground treatment; 8.6 Mechanism of the tunnelling process; 8.7 Surveying/alignment; 8.8 Temporary works; 8.9 Future; 9 - On-line Sewer Replacement in Tunnel; 9.1 Introduction; 9.2 Procedure - open-cut; 9.3 Heading; 9.4 Segmental tunnelling; 9.5 Pre-cast concrete tunnel linings; 9.6 Sewer replacement tunnels; 9.7 Access shafts; 9.8 City centre access problems; 9.9 Tunnel construction; 9.10 Dealing with existing flow; Bibliography; 10 - Pipejacking; 10.1 Introduction; 10.2 Technical aspects of pipejacking; 10.3 Pipe design and manufacture; 10.4 Surveying and alignment; 10.5 Temporary works; 10.6 The finished product; 11 - Management of Construction; 11.1 Introduction; 11.2 Types of contract; 11.3 CDM Regulations; 11.4 Contract management plan; 11.5 Site organisation; 11.6 Training; 11.7 Site support; 11.8 Audits; 11.9 Conclusion; 12 - Impact Moling

---

## Sommario/riassunto

Sewers: Replacement and New Construction is a detailed guide to the management and construction of new sewer systems. Different construction and replacement techniques, such as jacking, moling and ramming, are described and evaluated. The importance of proper site preparation and management is emphasised, and detailed guidance is given to pre-construction investigation as well as to managing traffic and public relations during the construction period. Geoffrey Read, one of the UK's leading experts on sewer construction, has compiled the most detailed account available on this sub

---