Contents

Foreword	x ii	BUILDING COMPONENTS	
		Foundations	
BASICS		Building excavations	66
Abbreviations and symbols	1	Foundations	69
SI units	2	Tanking, basement drainage	71
		Repair	73
Drawings	_	MI-II-	
Paper formats	4	Walls	7.4
Technical drawings	5	Natural stone masonry	
Layout of drawings	6	Brick and block masonry	
Construction drawings	7	Composite construction	
Construction drawing symbols	8	Repair	79
Water supply and drainage symbols,	12	Floor Slabs	
Electrical installation symbols	14	Slab construction	80
Security installation symbols	17	Refurbishment	81
Gas installation symbols	18	Concrete repair	82
Drawing by hand	19	Floors	83
Computer-aided drawing	20		
Accessible Building		Roofs	
Dimensions for wheelchair users	21	Roof shapes	
Accessible public buildings		Pitched roofs	
Accessible housing		Flat roofs	91
•	20	Windows	
Dimensional Basics and		Arrangement	. 96
Relationships		Requirements	
Man as measure and purpose	26	Design types	
The universal standard	27	Thermal insulation	
Body measurements and space requirements	28	Sound insulation	
Geometrical relationships	30	Cleaning buildings	
Dimensions in building	34	Loft windows	
- ""		Skylights and dome rooflights	
Building Biology	20	Skylights and dome roomgins	105
Basics		Glass	
Room climate		Basics	
Electromagnetic fields	38	Insulated glazing	105
Visual Perception		Security and noise control glass	107
The eye	39	Optically variable glass	108
Perception of colour		Cast glass	108
·		Glass doors	108
DESIGN PROCESS		Profiled glass	109
		Glass blocks	110
Design	40	Fire protection glazing	111
What is design?		Curtain walling	
Planes of reference		•	
Questionnaire	44	Doors	
Sustainable Building		Arrangement	
General, design, construction	46	Constructional details	
Operation, demolition		Special doors	
operation, demonstration		Garage/industrial doors	116
Facility Management		Lock suites	
Background	48	Security of buildings and grounds	118
Methods	49	Stairs	
Refurbishment		Principles	120
	50	Regulations	
Conservation and alteration		<u> </u>	
Care of historic monuments		Construction	
Listed building protection		Ramps, spiral stairs	
Recording of old buildings		Access and escape ladders	125
Conversion	54	Escalators	
Design and Construction		For shops and offices	126
Management			
Public building and planning law	56	Moving Walkways	
Private building law, VOB, HOAI		For shops and offices	127
Work phases		Lifts	
Measures of building use		Principles	128
Setback areas		Control equipment	
Construction costs	65	Passanger lifts for residential buildings	

Passenger lifts for offices, hotels, banks	131	Playgrounds	
Small goods lifts	132	Playground equipment	190
Hydraulic lifts	133	Ontrodo	
Special lifts	134	Schools	404
		General classrooms	
DECIDENTIAL DUIL DINION		Specialist classrooms	
RESIDENTIAL BUILDINGS		Information and communal area	
Basics		Sanitary facilities, break and circulation area	
Design basics	135	Arrangement of classrooms, clusters	
House-building policy		Model room programmes for primary schools	196
Tiouse-building policy		Examples	197
Housing Density		Universities and Colleges	
Parameters	137	Lecture theatres	100
Outsintation			
Orientation	400	Examples of lecture theatres	
Layout of buildings	138	Seating and projection	
Access		Seminar and service rooms	
Detached and terraced development	139	Laboratories	203
Deck access			
Stepped houses		CULTURAL VENUES	
Vertical access		COLIONAL VENULS	
vertical access	172	Museums and Art Galleries	
Floor Plans		General	207
Houses	143	Display rooms	208
Flats	145		
_		Theatres	
Rooms		Historical review	
Access		Typology	210
Kitchens		Auditorium	
Living areas	154	Seating	212
Bathrooms		Stage	213
Subsidiary rooms		Subsidiary rooms	215
Garages and carports	166	Workshops and staff rooms	216
		Rehearsal and public rooms	
ACCOMMODATION		Modernisation and extension	
ACCOMMODATION		Wodownood and extension	
Student Residences		Concert Halls	
General design notes	167	Origins, variants	219
		Technical requirements, organ, orchestra	220
Elderly People's Accommodation		Acoustics	221
Retirement flats		01	
Nursing and care homes		Cinemas	202
Examples	170	Projection	222
Hotels		Auditorium	
Basics	171	Multiplex cinemas	
		Multiplex cinemas, examples	
Rooms		Drive-in cinemas	226
Examples	1/3	Circus	
Catering		Stationary	227
Restaurants	174	Stationary	
Dining rooms, serving		Zoos	
Fast food outlets		Basics	228
Restaurant kitchens		Keeping animals	
		Enclosures	
Large kitchens		LIIOIOO	
Examples of large kitchens	183		
Youth Hostels		ADMINISTRATION AND OFFICES	
General design notes	184		
Conoral Goolgi Hotoc	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Office Buildings	
Holiday/Weekend Cabins		Structures	
General design notes	185	Tendencies/criteria	
Matala		Typology until 1980	
Motels	400	Typology since 1980	
General design notes	186	Space requirement	
Camping		Computer workstations	
General design notes	187	Archives	
		Additional areas	
		Room typology	
EDUCATION AND RESEARCH		Grid	
Children's Daycara		Access	
Children's Daycare	400		
Access and building layouts Rooms, outdoor areas		Building services Construction	
Moorne Outdoor areae	189	CONSTRUCTION	243

High-Rise Buildings		Operational areas	296
Basics	. 244	Outpatient area	
Construction		Outpatient medical centre – example	
Requirements		Examination and treatment	
·		Care	305
Libraries	0.47	Administration, social services	312
Basics		Supply and waste disposal	
Fittings	. 249	Technical supply	
Space requirement			
Scientific libraries		SPORT AND LEISURE	
Archives	. 252	OF ORT AND LEIGORE	
Banks		Stadiums	
Banks	. 253	Overview	318
Durine		Spectator stands	319
RETAIL		Sports Facilities	
NEIAL		Playing areas	320
Retail Outlets		Athletics	
Guidelines and typologies	. 254	Tennis	
Retail regulations	. 255	Miniature golf	
Entrances and shop windows	. 256	Golf courses	
Checkout and waiting zones	. 257	Water sport, marinas	
Waiting zones – examples	. 258	Water sport, mainras	
Routeing, escalators	. 259		
Fittings – dimensions	. 260	Equestrian sport	
Food shops	. 261	Ski jumping	
Self-service shops	. 262	lce rinks	
		Roller skating rinks	
INDUSTRY AND TRADE		Speed roller skating, skateboarding	
MOOGINI AND THATE		Cyclo-cross, BMX	
Industry		Shooting ranges	348
Basics	. 263	Sports Halls	
Shed construction	. 265	Dimensions	350
Multi-storey industrial buildings	. 266	Layout, construction	
Transport	267	Equipment	
Warehousing	268	Stands	
Subsidiary rooms	270	Examples	
Examples	. 273	Judo	
Workshops		Wrestling	
	274	Weight-lifting	
Joinery		Boxing	
Carpenter's shop		Badminton	
Metalwork		Squash	
Vehicle repairs		Table tennis	
Bakery		Billiards	
Meat processing plant		Condition, fitness	
Other trades		Climbing halls	
Laundry		Bowling alleys	
Fire station	283	Downing direys	
DELIGIOUS BUILDINGS		Swimming Pools	
RELIGIOUS BUILDINGS		Indoor swimming pools	
Christian Churches		Outdoor pools	367
Liturgical elements	285	Indoor/outdoor pools	368
Furnishing, vestry		Private pools	371
Bell towers		Spa	
	201	Sauna/small sauna/wellness	372
Synagogues		Sauria/siriaii sauria/weiiriess	
General design notes	288	Amusement Arcades	
Mosques		Amusement arcades	375
General design notes	280		
Concrai design notes	209	TRANSPORT	
MENITU			
HEALTH		Roads	070
Doctors' Practices		Street spaces	
Single and group practices	290	Types of road	
		Motorways	
Hospitals	00.	Traffic space	
General, modular grid		Inter-urban roads	
Building design		Intersections	
Examples		Footpaths and cycle ways	
Corridors, doors, stairs, lifts	295	Bicycle traffic/storage	383

Traffic calming	385	Greenhouses	
Noise protection	386	Greenhouses	441
Daubing Englisting		Ponds and Pools	
Parking Facilities	207		440
Vehicles		Garden pond Natural swimming pool	
Vehicles turning			
Parking spaces		Water plants for natural swimming pool	444
Multi-storey car parks		External Works – Example	
Ramps		Federal Environment Agency	445
Multi-storey car park regulations		• •	
Parking systems		A C DICLUITUDE	
Vehicles – trucks		AGRICULTURE	
Trucks – parking and turning		FARMYARDS	
Service areas		Basics	446
Petrol stations		Space requirements	
Car wash	402	Machinery	
Public Transport		Fodder storage	
Conditions, means of transport	403	Dung and drainage	
Stops and stations		Climate in animal housing	
Traffic spaces		· ·	
Bus stations		Animal Husbandry	
		Housing poultry	
Railways		Keeping small animals	
Tracks	408	Sheep housing	
Typical Continental European structure –		Laying hens	455
gauges and clearances		Pig keeping	
UK structure – gauges and clearances	411	Dairy farming	457
Freight Transport	413	Finishing beef cattle	458
Freight transport	413	Keeping horses	459
Stations	414	Supply and Disposal	
Station buildings	415	Loading yards	161
Platforms	416		
Platform furniture	417	Loading ramps, bridges, lifting platforms Rubbish chute systems	
Aviation		•	
Basics	/110	Rubbish collection rooms	
		Emergency power rooms	403
Airports			
Runways		BUILDING SERVICES	
Terminals			
Terminal and apron		Renewable Energy	400
Aeroplanes	423	Overview	
		Solar energy	
EXTERNAL WORKS		Bioenergy	
Cemeteries		Geothermal energy, heat pumps	469
Morgue and crematorium	424	CHP, block heating and power,	470
Graves, cemetery chapel		fuel cells	470
Cemeteries		Building Physics	
Cemeteries	420	Thermal insulation	471
Landscape Architecture		Sound insulation	477
Design aspects and concepts	426	Room acoustics	
Earthworks		Lightning protection	
Soil	428	• • •	
	120	Daylight	
Garden Enclosures		Physical basics	
Walls and fences	430	Position of the sun	
Pergola and Trellis		Insolation	
Pergolas	432	Shadow	493
Trellises		Radiation energy	
Examples of plants		Window lighting	
·		Rooflighting	497
Paths, Paving, Steps		Quality criteria	498
Design aspects	435	Directing sunlight	
Drainage		Sun shading	500
Rainwater management	436	Lighting	
·		. T T	501
Vegetation		Artificial lighting Lamps	
Plants		Types of lighting	
Plants and lawns	438		
Biological Engineering		Lighting layout	
Supporting slopes and riverbanks	130	•	
and the contraction of the contr		Illuminance	508

Fiuorescent tubes		Heating	532
Workplace Guideline 'Artificial lighting' (excerpt)	510	Small sewage treatment plants	536
Fire Protection		Chimneys and Ventilation Shafts	
Basics	511	Chimneys	537
Classification		Open fireplaces	538
Fire compartment walls	513	Ventilation shafts	530
Building components	514		
Fire-resistant glazing	516	References	540
Fire-resistant door sets	517	BS and DIN Standards	E 4 0
Fire fighting installations	518		340
Smoke and heat extractor systems	519	Conversion of Units	
Sprinkler systems		Weights and measures	555
Other extinguishing systems	521	Conversion tables	560
Domestic Installation		INDEX	575
Drainage	522		
Ventilation	528		