Contents

Appendix A: British Standards and Codes Applicable

Appendix B: U.S. Agencies

Appendix B (1): U.S. Standards and Codes Quoted

Appendix B (2): Other Codes

Appendix C: Sheet Metal Gauges

Appendix D (1): High Hazard Materials

Appendix D (2): Moderate Hazard Materials

Appendix D (3): Low Hazard Materials

Appendix E: Weights of Building Material

Appendix F: Accessibility Guidelines for Handicapped Persons

Appendix G: General Guidelines for Fire Resistive Construction

Appendix H: Requirements of Group Occupancies

Appendix H (1): Group A

Appendix H (2): Group B

Appendix H (3): Group C

Appendix H (4): Group D

Appendix H (5): Group E

Appendix H (6) Group F

Appendix I: Classification by Types of Construction

Appendix I (1) Type 1 Buildings (Fire Resistive)

Appendix I (2): Type 2 Buildings (Semi-Fire Resistive)

Appendix I (3): Type 3 Buildings (Ordinary Masonry)

Appendix I (4): Type 4 Buildings (Non-combustible)

Appendix I (5): Type 5 Buildings (Wood Frame)

June 1995 edition codeapp.con

APPENDIX A

BRITISH STANDARDS AND CODES APPLICABLE

Item	Code No. or Standard	Description
A1 A2 A3 A4	BS 144 BS 373 BS 405 BS 497	Wood preservation using coal tar creosotes Testing small clear specimens of timber Expanded metal (steel) for general purposes Manhole covers, road gully gratings and frames for drainage purposes
A5 A6 A7 A8 A9 A10	BS 5911 BS 648 BS 690 BS 8004:1986 BS 915 BS 6925	Precast concrete pipes, fittings and ancillary products Schedule of weights of building materials Asbestos-cement slates and sheets Code of practice for foundations High alumina cement Mastic asphalt (limestone aggregate)
A11 A12 A13	BS 1187 BS 1191 BS 1200	Wood blocks for floors Gypsum building plasters Sands for mortar for plain and reinforced brickwork, block walling and masonry
A14 A15	BS 1230 BS 1282	Gypsum plasterboard Guide to the choice, use and application of wood preservatives
A16 A17 A18	BS 1297 BS 1369 BS 1370	Grading and sizing of softwood flooring Metal lathing (steel) for plastering Low heat Portland cement
A19 A20 A21 A22	BS 1521 BS 1579 BS 6323 BS 1876	Waterproof building papers Timber connectors Seamless and welded steel tubes Automatic flushing for urinals
A23 A24 A25	BS 1881 BS 5135 BS 2994	Methods of testing concrete Arc welding of steels Cold rolled steel sections

APPENDIX A (Cont'd)

BRITISH STANDARDS AND CODES APPLICABLE

Item	Code No. or Standard	Description
	Standard	
A26	BS 3260	PVC (vinyl) asbestos floor tiles
A27	BS 3261	Unbacked flexible PVC flooring
A28	BS 3284	Polythene pipe (type 50) for cold water services
A29	BS 3921	Clay brick and blocks
A30	BS 4360	Specification for weldable structural steels
A31	BS 4482	Hard drawn steel wire for the reinforcement of
		concrete
A32	BS 4483	Steel fabric for the reinforcement of concrete
A33	BS 8000 Part 3	Code of practice for masonry
A34	BS 5268	Structural use of timber
A35	BS 5628	Structural recommendations for load bearing walls
A36	BS 5655	Lifts and service lifts
A37	BS 5950	Structural use of steelwork in building
A38	BS 8110	The structural use of concrete in buildings
A39	BS 8214:1990	Code of practice for fire door assemblies with non-
		metallic leaves
A40	BS 6399 Part 1	Dead and imposed loads
A41	BS 8000 Part 3	Code of practice for masonry
A42	BS 8000 Part 2	Code of practice for concrete work
A43	BS 8005 Part 1: 1987	Guide to new sewerage construction

APPENDIX B

U.S. AGENCIES

Designation	Institution
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ACI: American Concrete Institute,

818 Connecticut Ave. N.W. Washington, D.C. 20006

AITC: American Institute of Timber Construction Inc.

333 West Hampden Ave, Englewood, Colorado 80110

AISC: American Institute of Steel Construction Inc.

Wrigley Building 44 N Michigan Ave., Chicago,

Illinois 60611

ANSI: American National Standards Institute

1430 Broadway, New York, New York 10018

AISI: American Iron and Steel Institute

100 16th St. N.W., Washington, D.C. 20036

APA: American Plywood Association

1119 A St., Tacoma, Washington 98401

ASTM: American Society for Testing and Materials

1916 Race St. Philadelphia, Pennsylvania 19103

AWS: American Welding Society, Inc.

2501 N.W. 7th St. Miami, Florida 33125

NBS: National Bureau of Standards

U.S. Dept. of Commerce Washington D.C. 20402

NFiPA: National Fire Protection Association

470 Atlantic Ave., Boston, Massachusetts 02210

NPA: National Particleboard Association

2306 Perkins Place, Silver Springs, Maryland

SJI: Steel Joist Institute

1703 Parham Rd, Richmond, Virginia 23229

TPI: Truss Plate Institute

2400 East Devon, Des Plaines, Illinois 60018, USA

AWPB: American Wood Preservers Bureau, PO Box 6085, Arlington, Virginia 22206,

USA

APPENDIX B (1)

U.S. STANDARDS AND CODES QUOTED

Item	Code No	Description
B 1	ACI 318	Building code requirements for reinforced concrete
B2	ACI 315	Manual of standard practice for detailing reinforced concrete structures
B3	ACI 530-92	Building code requirements for concrete masonry structures
B4	ASTM C90	Specifications for hollow load-bearing concrete masonry units
B5	ANSI A41.1	Standard requirements for reinforced masonry
B6	AITC 101	
	to 115	Timber construction standards
В7	NLMA	National design specification for stress grade lumber and its fastenings
В8	NBS R 16	American lumber standards for softwood lumber
B9	NBS-CS	Douglas fir plywood, commercial standard
B10	AISC-SJI	Standard specification for open web long span steel joist construction
B11	AISC	Specifications for design, fabrication and erection of structural steel for buildings
B12	ANSI A59.1	Specifications for reinforced gypsum concrete
B13	SJI AISC	Specifications and load tables for J series and H series joists
B14	AWS D1.1	Structural Welding Code
B15	AWS D1.3 78	Specifications for Welding Sheet Steel in Buildings
B16	AISC	Specifications for Structural Joints using ASTM A325 or ASTM A490 Bolts
B17	ANSI/ASTM A6	Standard Specification for General Requirements for Rolled Steel Plates, Shapes,
		Sheet Piling, and Bars for Structural Use
B18	AISI	Specification for the Design of Cold-Formed Stainless Steel Members
B19	AISI A151	Structural Specifications for the Design of Light Gauge Structural Members
B20	TPI. 1978	Design Specifications for Light Metal Plate Connected Wood Trusses

APPENDIX B (2)

OTHER CODES

C1	Caribbean Uniform Building Code (CUBiC) Caricom Community Secretariat, Georgetown, Guyana
C2	National Building Code of Jamaica Ministry of Finance and Planning, Kingston, Jamaica
C3	Standard Building Code Southern Building Code Congress International Birmingham, Alabama, USA.
C4	South Florida Building Code Board of County Commissioners, Metropolitan Dade County, Florida, USA.
C5	Bahamas Building Code Ministry of Works, Nassau, Bahamas
C6	National Building Code of Canada National Research Council of Canada, Montreal, Ottawa, Ontario, Canada

APPENDIX C

STEEL SHEET METAL GAUGES

British Imperial or US Standard Gauge (Uncoated Steel Sheets)

Wire Gauge	British Standard Thickness (inches)	US Standard Thickness (inches)
4	0.2242	0.232
6	0.1943	0.192
8	0.1644	0.160
10	0.1345	0.128
12	0.1046	0.104
14	0.0747	0.080
16	0.0598	0.064
18	0.0478	0.048
20	0.0359	0.036
22	0.0299	0.028
24	0.0239	0.022
26	0.0179	0.018
28	0.0149	0.0148
30	0.0120	0.124

APPENDIX D (1)

HIGH HAZARD MATERIALS

- Acetylene gas and gasses under pressure and in quantities of greater than 70 cubic metres
 including hydrogen, natural ammonia, carbon monoxide, chlorine, methyl oxide and all
 gasses subject to explosion, fume or toxic hazard.
- Ammunition, explosives and fireworks manufacture
- 3. Apparel manufacture
- Artificial flowers and synthetic leather manufacture
- 5 Celluloid and celluloid products
- 6. Cereal, feed, flour and grist mills
- Cotton batting and cotton waste processes
- 8. Dry cleaning establishments
- 9. Fruit ripening processes
- 10. Grain elevators
- 11. Industries employing substances which ignite or produce flammable gasses on contact with water
- 12. Kerosene, fuel, lubricating or any oil storage with a flash point under 80 degrees C.
- 13. Match manufacture or storage
- 14. Metal enamelling
- 15. Nitro-cellulose film exchanges and laboratories
- 16 Paint and varnish manufacture or spraying or dipping
- 17. Petroleum manufacture
- 18. Processing of paper or cardboard in loose form
- 19. refrigerating systems using high hazard refrigerants
- 20. Shoe polish manufacture
- 21. Smoke houses (industrial)
- 22. Straw goods manufacture or broom storage
- 23. Sugar and starch pulverising mills
- 24 Tar, pitch or resin processing
- 25. Tyre storage warehouses
- 26. Waste paper sorting or shredding, storage or baling

APPENDIX D (2)

MODERATE HAZARD MATERIALS

- 1. Bags, cloth burlap and paper
- 2. Bamboo and rattan baskets
- 3. Belting, canvas and leather
- 4. Books and paper in rolls or packs
- Boots and shoes
- 6. Buttons, including cloth covered, pearl and bone
- 7. Cardboard and cardboard boxes
- 8. Clothing
- 9. Cordage
- 10 Fibre board
- 11. Furniture
- 12. Glue, mucilage and paste
- 13. Linoleum
- 14. Livestock shelters
- 15. Lumber yards
- 16. Motor vehicle repair shops
- 17. Petroleum warehouses for storage of lubricating oils with a flash point of 150 degrees C. or higher
- 18. Photo engraving
- 19. Soap
- 20. Sugar
- 21. Tobacco, cigars, cigarettes
- 22. Upholstering and mattress manufacturing
- 23. Wax candles

APPENDIX D (3)

LOW HAZARD MATERIALS

- 1. Asbestos
- 2. Chalk and Crayons
- 3. Food products
- 4. Glass
- 5. Metals
- 6. Motor car spares (excluding upholstery)
- 7. Plumbing wares
- 8. Porcelain and pottery
- 9. Talc and soapstones

Note: See Tables 3.107.2, 3.111.2, and 3.111.3 of Part 3, Caribbean Uniform Building Code

APPENDIX E

WEIGHTS OF BUILDING MATERIAL

Material	Weight - lbs/sq.ft
Ceilings	
Plasterboard, unplastered Plaster, 3/4 in, and wood lath Plaster on tile or concrete	3 8 5
Suspended, metal lath and plaster	10
<u>Floors</u>	
Hardwood flooring, 7/8 in thick Sheathing, yellow pine 1 in. thick Spruce Wood block, creosoted 3 in thick Cement finish per in. thick Terrazzo tile per in. thick including base Gypsum Slab, per in thick	4 4 2.5 15 12 12 5
Roofs	
Corrugated metal, galvanised:	
20 gauge 24 gauge 28 gauge	1.66 1.16 0.78
Roofing felt, 3 ply and gravel Roofing felt, 5 ply and gravel 3 ply ready roofing Shingles, wood Tile or slate	5.5 6.5 1 3 5 to 20
Partitions	
Channel Studs, metal lath, cement plaster, solid 2" thick Studs, 2" x 4", wood or metal lath, 3/4 in. plaster both sides Studs, 2" x 4", plaster board, 1/2" plaster both sides Plaster, 1/2" on clay tile (one side)	17.5 18 18 4

E-1

APPENDIX E (Cont'd)

Material	Weight -lbs/cu.ft.
Mortar Rubble Masonry	
Limestone	150
Dry Rubble Masonry	
Limestone	125
Earth etc Excavated	
Sand, gravel, dry, loose Sand, gravel, dry, packed Clay, dry Clay, damp, plastic Clay, and gravel, dry Earth, dry, loose Earth, dry, packed Earth, moist, packed Earth, mud packed Riprap, limestone	90 to 105 100 to 120 63 110 100 76 95 96 115 80 to 115
Excavations in Water	
Sand or gravel Sand or gravel and clay Clay River mud Soil Stone riprap	60 65 80 90 70 65
Concrete Block	
8" x 8" x 16" (from the US)	35 to 40 lbs per block
8" x 8" x 16" (from the Dominican Republic or other areas with igneous or extrusive rock)	45 to 50 lbs per block

APPENDIX E (Cont'd)

Material	Weight - lbs/cu.ft.
Concrete	
With aggregate (basalt or other extrusive rocks)	155 to 160
With aggregate (sedimentary rock), from Jamaica, Bahamas and other quarries	145 to 150
With aggregate from limestone (local sources)	140 to 145

June 1997 edition E-3

APPENDIX F

ACCESSIBILITY GUIDELINES FOR HANDICAPPED PERSONS

1. Scope

- 1.1 The following guidelines are intended to introduce designers and builders to the minimum provisions required for safe access for handicapped persons to building facilities. The guidelines should be used in conjunction with the Building Code provisions and in conjunction with the specific recommendations of the bodies and institutions engaged in assisting handicapped persons with the minimum provisions needed for access to all facilities.
- 1.2 Designers should also be aware of the United States Americans with Disabilities Act (ADA) which was signed into law in July 1990, and which determines the minimum provisions for disabled persons in public institutions.

The Act includes:

a)	Title 1:	Employment
b)	Title 11:	State and Local Government services, regardless of
		the receipt of federal funds
c)	Title 111:	Public Accommodation - hotels, retail establishments
		etc
d)	Title 1V:	Telecommunications
e)	Title V:	Miscellaneous Provisions - includes attorney's fees.

- 1.3 Designers of public buildings in Groups A and B(a) would therefore be expected to consult the relevant bodies such as the local chapter of the institutes for the blind for specific information based on the research being carried out by these bodies. In accordance with 501.2(e), the Director will examine the plans for new public facilities to ensure that adequate provisions have been made for physically handicapped persons.
- 1.4 The following should be considered as minimum provisions for facilities for handicapped persons in wheel chairs using public buildings.
 - All public buildings post offices, hospitals, asylums, sanatoria, airport terminals and sea port terminals - and all other buildings in Group B (a) shall have provisions for the physically handicapped including those persons in wheel chairs.
 - b) It is desirable that other public buildings such as banks, theatres, assembly halls, hotels and cinemas, have some provisions which would allow ease of access by persons in wheel chairs.
 - c) Hotels and other establishments offering accommodation to the public should have at least one bedroom for every 25 bedrooms, or a fraction thereof, made accessible for disabled persons.

d) In new housing developments consideration should be given to constructing at least one dwelling unit in every 25 units (or a fraction thereof) to be accessible to disabled persons.

2. Relevant Guidelines

- 2.1 The following Guidelines and Codes provide detailed information on the design of barrier free facilities:
 - BS 5588 Means of Escape for disabled persons
 - Caribbean Uniform Building Code, Sections 3.125 and 3.126
 - Barrier Free Design A National Standard for Canada; Canadian Standards Association, June 1990
 - Access Needs of Blind and Visually Impaired Travellers in Transportation Terminals: A Study and Design Guidelines, Canadian Institute of the Blind, December 1987.
 - National Building Code of Canada Section 3.7 Barrier Free Design;
 National Research Council of Canada, Ottawa
- 2.2 It is suggested that designers also read the following:
 - "Building without barriers for the disabled" Sarah P. Harkness and James N. Groom Jr.; Whitney Library of Design, 1515 Broadway, New York, New York 10036.

3. Building Approaches and Entrances

- a) In every public building, at least one primary entrance at ground floor level shall be accessible from the street entrance or parking lot by means of a walkway or ramp with a gradient of not more than one in twenty. There shall be no steps or abrupt changes in grade of the access way.
- b) At every entrance there should be a level platform at least 3' 0" by 4' 0" to afford the opening and closing of doors by persons in wheel chairs. Such platforms should also be constructed at every change of grade or direction of the ramp and at 30 foot intervals on a long ramp.
- c) A clear space of 4' 0" x 4" 0" would allow access for both forward and side approaches to doors A clear space of 5' 0" x 5' 0" is required for a wheelchair to pivot 180 degrees.
- d) Kerbs intended to be crossed by handicapped persons in wheel chairs should be cut to provide a passage of not more than 4 inches high at the kerb and at least 4 feet wide. The lip of the kerb should not be greater than 1" high. Such ramps should be of contrasting colour and texture.

- e) Access ramps should be provided with handrails on both sides at a height of 2' 8" measured from the ramp surface to the top of the rail.
- f) Gratings across entrances and walkways must be avoided. Where gratings are absolutely necessary for drainage the apertures of the gratings should not be greater than 3/4" and the bars at least 1/2" wide set at right angles to the direction of travel. Gratings and manholes covers should fit securely and be flush with the walk way or street.
- g) Catch basins should be constructed outside of pedestrian crossings.

4. Walkways and Sidewalks

- a) The surfaces of walkways should be constructed of non-slip covering.
- b) Walkways in passages and courtyards should be 4' 6" to 6' 6" wide with shoulders about 4' 0" wide.
- c) Slopes should be no greater than 5%
- d) Cross slopes no greater than 2%.
- e) Walkway widths for persons using crutches or service dogs should d be a minimum of 3" wide
- f) Sidewalks should be 5' 0" wide
- g) Slopes for sidewalks should be 2-1/2% to 5% maximum

5. Doors and Corridors

- Doors should be openable in a single motion with one hand and with a force of no greater than 5 pounds, and should have a clear swing of at least 90 degrees.
 For sliding doors the force required to operate the door should not be greater than 8.5 pounds.
- b) Doorways should be a minimum of 32 inches clear.
- c) Door latches, handles and pull bars should be easy to grasp and between 2' 0" and 4' 0" high. Knobsets should not be used.
- d) Corridors should be at least 4' 0" wide and should be equipped with an easy to grasp hand rail along one side. The handrail should be at a height of 2' 8" to 2' 11" and be 1-1/2" clear of the wall.
- e) Except in confined spaces and except for doors to toilets and washrooms, all doors in corridors should open into rooms.

- f) The minimum clear floor space or ground area for wheel chairs is 3' 6" x 4' 0". An area 4' 0" x 4' 0" allows access to doors for both forward and side approaches.
- g) The space required for manoeuvring wheel chairs at doorways is given in the Table F-1

Table F-I

Applicable Dimensions for Wheel Chair Space at Doorways

Description	Floor depth (ftin.)	Space width (ftin.)	Required space beside latch (ftin.)
Front Approach Side hinged	50	4-0	
Pull Push	5-0 4-0	4-0	2-0 1-0
Latch Side Approach			
Pull Side Push Side	4-0 3-6	5-0 5-0	2-0 2-0
	1 3-0	3-0	2-0
Hinged Side Approach Pull Side	5-0	5-0	2-0
Push Side	3-6	4-6	1-5
Sliding Door			
Front approach	4-0	3-0	1-9
Side approach	3-6	4-6	1-10

6. Elevators

Where elevators are required to access upper floors at least one elevators should be constructed to meet the requirements given below:

- a) Elevators should be accessible from the ground floor entrance
- b) The elevator cab shall have a clear area of not less than 20 square feet, with a minimum dimension of 4.5 feet.
- c) The elevator door should be at least 32 inches in clear width
- d) Elevators should be self levelling with a maximum tolerance of 1 inch.
- e) Control buttons should be located not more than 4.5 feet above the floor.
- f) Handrails should be provided at a height of between 2' 8" and 2' 11".

7. Theatres, Cinemas and Auditoria

a) There should be accommodation for persons in wheel chairs attending functions at the public buildings as follows:

Table F-2
Spaces Required For Wheel Chairs

Number of Fixed Seating	Number of Spaces Required for Wheel Chairs	
Up to 200	2	
201 to 300	3	
301 to 400	4	
401 to 500	5	
501 to 600	6	
Over 600	6 plus 1 for each additional increment of 500 seats to a maximum of 12.	

- b) Wheel chair spaces should be not less than 4' 4" deep by 2' 6" wide and should preferably be integrated into the regular seating.
- c) Each space should be on an aisle and should be on the same level and near to an exit.
- d) Where a public address communication system is installed, headphones outlets should be provided for persons in wheel chairs at a ratio of 1 such outlet for every 100 seats with a minimum of two.

8. Ground and Floor Surfaces

- a) The surfaces of the ground and floor on which disabled persons must walk should be firm, slip resistant and free of glare. Any change in level should be treated as per Table F-3.
- b) The floor surface of detectable warning surfaces should be about 3' 0" long and be of contrasting colour.
- c) Floor surfaces should be slip resistant as far as possible. The slip resistance of common surfaces is given in Table F-4.

Table F-3
Changes in Level

Vertical Rise (in.)	Edge Treatment
0 - 1/4	May be vertical
1/4 - 1/2	Should be bevelled Max slope 1:2.
over 1/2	Treat as ramp.

Table F-4
Slip Resistance of Floor Finishes

Surface	Dry and Unpolished	Wet
Clay tiles	Very good	Very good
Carpet*	Very good	Good
Clay tiles (textured)	Very good	Good (External)
Cork tiles	Very good	
PVC with non-slip granules	Very good	Good
Mastic asphalt	Good	Good
Concrete**	Good	Poor to fair
Terrazao	Good	Poor to fair

Notes: * The soft weave of the carpet may make travel in a straight line difficult

9. Protruding Objects

It is recommended that designers consult Section 3 of the National Building Code of Canada or other Code for the proper placing of protruding objects. Objects protruding from walls with their leading edges between 2' 6" and 6' 6", shall protrude not more than 4" into pedestrian areas such as sidewalks, halls, corridors, etc.

10. Walls

- a) Wall surfaces should not be rough or uneven and should have contrasting colours.
- b) Mirrored walls should not be used as they may be confusing to the visually impaired.
- c) Glass panels may be confused as egress routes.

11. Detectable Objects

The following guide should be considered in the placing of objects on walls or in rooms to be traversed or used by the physically handicapped.

- a) Objects with their leading edges 2' 4" from the floor may protrude any amount.
- b) Objects between 2' 4" and 6' 8" from the floor shall not overhang more than 12 inches.

^{**} Textured finish to concrete improves its resistance when wet.

- c) The maximum height of the bottom edge of an object with a space of more than 12 inches between supports shall be 2' 3" from the floor.
- d) Freestanding objects shall not overhang more than 1 foot between 2' 3" and 6' 5".

12. Headroom

The minimum headroom - clear height from the floor to ceiling (or any supporting beam or member) - is 7 feet.

13. Bathroom and Toilet Facilities

- a) All public buildings shall have at least one toilet specially constructed for use by handicapped persons. Such toilet compartments shall carry on the door to the compartment the international sign indicating that such a compartment has been specially constructed for use by handicapped persons. The sketches attached show planning arrangements for the toilet compartments and the international signs used for handicapped facilities.
- b) Toilet fixtures should be so placed as to facilitate the turning of a wheelchair.
- c) Handrails of not less than 1 inch and not more than 1-1/2 inches O.D. shall be provided on both sides of the water closet, and mounted 34 inches above and parallel to the floor. The handrail should be placed with the front end about 2 feet in front of the water closet.
- d) Toilet seats should be 18 inches to 24 inches off the floor. They should be equipped with:
 - hand operated flushing controls that can be reached by persons in a wheel chair and
 - ii) a back support.
- e) Wash basins should be placed a maximum of 2' 10" high with a clear space of at least 2' 3" high by 3' 0" under the basin. The wash basin should be equipped with faucet handles of the lever type without spring loading. The soap and towel dispensers should be located not more than 4 feet above the floor and be accessible to persons on a wheel chair.
- f) The bottom edge of a mirror should not be more than 3' 0" above the floor.
- g) Where showers are provided in public assembly buildings at least one shower for each sex should be constructed for use by handicapped persons. Such showers should not be less than 5' 0" by 3' 0" with a threshold no higher than 1/2" and a curtain hung 3' 0" from the back wall.
- h) Doors to toilet facilities should always open outwards and be equipped with self closing hinges or door closers.

 Vertical and horizontal grip rails should be installed and readily accessible from the toilet and shower.

14. Parking Lots

- a) Any parking lot servicing an entrance described in 506.1 shall have a number of level parking spaces identified by the appropriate international signs as reserved for handicapped persons. Each reserved parking space shall not be less than 12' 0" wide.
- b) Table F-5 gives the suggested number of reserved parking spaces for handicapped persons. Such parking spaces shall be within easy reach of an exit, and shall be so placed that the person using the space would not be compelled to pass behind other parked vehicles to access the building entrance, ramp or walkway.

Table F-5

Accessible Parking Spaces for the Physically Handicapped

Total Number of Parking Spaces in Lot	Required Number of Spaces Reserved for Handicapped Persons
1 - 50	I
51 - 75	2
76 - 100	3
101 - 200	4
201 - 500	5
above 500	1 percent of the total number of spaces

15. Illumination

All spaces to be used by visually impaired persons should be provided with at least the lighting level of 100 lux.

16. Signs

For adequate recognition of signs by the visually impaired the signs should be constructed and placed in accordance with the following Table F-6.

Table F-6
Placing of Signs

Minimum Character Height (in.)	Maximum Viewing Distance (ftin.)
8	20-0
5	15-0
4	8-0
3	7-10
2	5-0
1	2-6

17. Provisions for access to service in Supermarkets, Banks and other Public Places

a) Aisles.

The minimum width of aisles for persons to allow safe manoeuvring by persons in wheel chairs should be 3'4" for travel in a straight line and 5' 0" to provide for a 180 degree turn. In supermarkets and other public places such as assembly halls, banks and theatres it is recommended that provision be made for 2 persons in wheel chairs to pass, and for persons in wheel chairs to make a 180 degree turn. The recommended minimum width for aisles is therefore 5' 0".

b) Counters

It is recommended that special seating arrangements be made at banks, work places and lunch counters for persons in wheel chairs.

Adequate room must be provided for safe manoeuvring to approach the counter.

Seating spaces at counters should have a clear floor space of not less than 2' 6" by 4' 0". Where a forward approach is possible there should be a clear knee space of at least 2' 6" wide by 1' 8" deep by 2' 4" high.

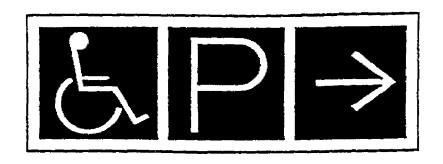
At lunch counters and at places where it is necessary to stand or sit to be served, there should be at least one such special seat available for every 30 places. There should be at least one special counter available in banks for persons in wheel chairs.

c) Shopping Malls

The design of shopping malls should be in accordance with BS 5588 Part 10: 1991 Code of practice for shopping complexes.

18. Public Telephones

- a) Wherever public telephones are installed provision shall be made for at least one telephone to be accessible by persons in wheel chairs.
- b) The maximum height of the telephone controls should be 4' 6" and a clear floor space of not less than 3' 0" by 4' 0" shall be provided in front of the telephone. If a clear height of 2' 6" is available for knee space, then the allowable floor space can extend into the knee area a maximum of 4' 0".
- c) The minimum cord length should be 3' 4".
- d) The telephone assembly including the enclosures shall not reduce the minimum width required for safe passage in corridors, aisles or walkways





INTERNATIONAL SIGNS

