

APPENDIX A

ACCREDITED AUTHORITATIVE AGENCIES

CONCRETE

American Concrete Institute  
P. O. Box 4754 Redford Station  
22400 West Seven Mile Road  
Detroit, Michigan 48219 . . . . . ACI

Concrete Reinforcing Steel Institute  
228 North LaSalle Street  
Chicago, Illinois 60601 . . . . . CRSI

Gypsum Association  
201 North Wells Street  
Chicago, Illinois 60606 . . . . . GA

National Concrete Masonry Association  
2009 Fourteenth Street, North  
Arlington, Virginia 22201 . . . . . NCMA

National Lime Association  
4000 Brandywine Street, NW  
Washington, D. C. 20016 . . . . . NLA

Portland Cement Association  
5420 Old Orchard Road  
Skokie, Illinois 60076 . . . . . PCA

ELECTRICAL

Institute of Electrical and  
Electronics Engineers, Inc.  
345 East 47th Street  
New York, New York 10017. . . . . IEEE

Illuminating Engineers Society  
345 East 47th Street  
New York, New York 10017. . . . . IES

International Association of  
Electrical Inspectors  
802 Busse Highway  
Park Ridge, Illinois 60068. . . . . IAIEI

National Electrical Manufacturers  
Association  
155 East 44th Street  
New York, New York 10017 . . . . .NEMA

National Electric Sign Association  
10922 South Western Avenue  
Chicago, Illinois 60642 . . . . .NESA

EQUIPMENT

Air-Conditioning and Refrigeration  
Institute  
1815 North Fort Myer Drive  
Arlington, Virginia 22209. . . . . ARI

American Gas Association  
1032 East 62nd Street  
Cleveland, Ohio 44103 . . . . . AGA

American Petroleum Institute  
1625 K Street, NW  
Washington, D. C. 20005 . . . . . API

American Society of Heating,  
Refrigerating and Air-Conditioning  
Engineers  
United Engineering Center  
345 East 47th Street  
New York, New York 10017 . . . . .ASHRAE

The American Society of Mechanical  
Engineers  
United Engineering Center  
345 East 47th Street  
New York, New York 10017 . . . . .ASME

Home Ventilating Institute  
230 North Michigan Avenue  
Chicago, Illinois 60601 . . . . . HVI

Incinerator Institute of America  
2425 Wilson Boulevard  
Arlington, Virginia 22201. . . . . IIA

The Institute of Boiler and  
Radiator Manufacturers  
393 Seventh Avenue-10th Floor  
New York, New York 10001 . . . . . I-B-R

National Automatic Sprinkler and  
Fire Control Association, Inc.  
2 Holland Avenue  
White Plains, New York 10603 . . . . .NASFCA

National Elevator Industry, Inc.  
600 Third Avenue  
New York, New York 10016 . . . . . NEI

National LP-Gas Association  
79 West Monroe Street  
Chicago, Illinois 60603. . . . . NLPGA

National Oil Fuel Institute, Inc.  
60 East 42nd Street  
New York, New York 10017 . . . . .NOFI

National Environmental Systems  
Contractors Association  
221 N. LaSalle Street  
Chicago, Illinois 60601. . . . . NESCA

Uniform Boiler and Pressure Vessel  
Laws Society, Inc.  
57 Pratt Street  
Hartford, Connecticut 06103. . . . .UBPVL

#### GOVERNMENT AGENCIES

Commonwealth of Massachusetts  
Department of Public Health  
Boston, Mass. 02111. . . . . Mass-DPH

Commonwealth of Massachusetts  
Department of Public Safety  
Boston, Mass. 02215. . . . . Mass-DPS

Commonwealth of Massachusetts  
Executive Office of Human Services  
Boston, Mass. 02202. . . . . Mass-EOHS

Commonwealth of Massachusetts  
Outdoor Advertising Board  
Boston, Mass. 02116. . . . . Mass-OAB

Department of Defense  
Office of Civil Defense  
Office of the Secretary of the Army  
Washington, D. C. 20390. . . . . DOD- OCD

Federal Aviation Agency  
Systems Research and Development  
Service  
Washington, D. C. 20553. . . . . FAA

Federal Specifications  
Superintendent of Documents  
Government Printing Office  
Washington, D. C. 20234. . . . . FS

Forest Products Laboratory  
United States Department of  
Agriculture  
Madison, Wisconsin 53705 . . . . . FPL

Housing and Home Finance Agency  
Division of Housing Research  
Washington, D. C. 20410. . . . . HHFA

Joint Army-Navy Specifications  
Bureau of Supplies and Accounts  
Navy Department  
Washington, D. C. 20225  
Air Material Command  
Wright-Patterson Air Force Base  
Dayton, Ohio 45433. . . . . JAN

National Bureau of Standards  
(Department of Commerce)  
Washington, D. C. 20234. . . . . NBS

National Research Council of Canada  
Division of Building Research  
Ottawa, Ontario, Canada. . . . . NRCC

Naval Facilities Engineering  
Command  
(formerly Bureau of Yards and Docks)  
Navy Department  
Washington, D. C. 20390. . . . . NFEC

Navy Specifications  
Bureau of Supplies and Accounts  
Navy Department  
Washington, D. C. 20225. . . . . NS

Product Standards Section  
Office of Engineering Standards  
Services  
National Bureau of Standards  
Washington, D. C. 20234. . . . . PS

Public Health Service  
 Department of Health, Education  
 and Welfare  
 Washington, D. C. 20201. . . . . PHS

Superintendent of Documents  
 Government Printing Office  
 Washington, D. C. 20402. . . . . GPO

United States Department of  
 Agriculture  
 Washington, D. C. 20225. . . . . USDA

United States Department of Commerce  
 Construction Division  
 Washington, D. C. 20225. . . . . USDC

United States Forest Service  
 Madison, Wisconsin 53705 . . . . . USFS

United States Department  
 of Health, Education and Welfare  
 Washington, D. C. 20201. . . . . USHEW

United States Naval Supply Depot  
 5801 Tabor Avenue  
 Philadelphia, Pennsylvania 19120 . . . . . USNSD

INTERIOR FINISHES AND MASONRY

Acoustical and Insulating Materials  
 Association  
 205 West Touhy Avenue  
 Park Ridge, Illinois 60068 . . . . . AIMA

American Hardboard Association  
 20 North Wacker Drive  
 Chicago, Illinois 60606. . . . . AHA

Asphalt and Vinyl Asbestos Tile  
 Institute  
 101 Park Avenue  
 New York, New York 10017 . . . . . AVATI

Facing Tile Institute  
 333 North Michigan Avenue  
 Chicago, Illinois 60601. . . . . FTI

Gypsum Association  
201 North Wells Street  
Chicago, Illinois 60606. . . . . GA

Marble Institute of America, Inc.  
Pennsylvania Building  
Washington, D. C. 20004. . . . . MIA

Indiana Limestone Institute of  
America, Inc.  
400 East 7th Street-P. O. Box 489  
Bloomington, Indiana 47401 . . . . . ILIA

National Building Granite Quarries  
Association, Inc.  
P. O. Box 444  
Concord, New Hampshire 03302 . . . . . NBGQA

National Concrete Masonry Association  
2009 Fourteenth Street, North  
Arlington, Virginia 22201. . . . . NCMA

National Lime Association  
4000 Brandywine Street, NW  
Washington, D. C. 20016. . . . . NLA

National Particleboard Association  
711 Fourteenth Street, NW  
Washington, D. C. 20005. . . . . NPA

Perlite Institute, Inc.  
45 West 45th Street  
New York, New York 10036 . . . . . PI

Portland Cement Association  
5420 Old Orchard Road  
Skokie, Illinois 60076 . . . . . PCA

The Society of the Plastics  
Industry, Inc.  
250 Park Avenue  
New York, New York 10017 . . . . . SPI

Brick Institute of America  
1750 Old Meadow Road  
McLean, Virginia 22101 . . . . . BIA  
(Formerly Structural Clay  
Products Institute)

Tile Council of America  
Research Center-P. O. Box 326  
Princeton, New Jersey 08540. . . . .TCA

Vermiculite Institute  
141 West Jackson Blvd.  
Chicago, Illinois 60604. . . . . VI

METAL AND STEEL

Aluminum Association  
750 Third Avenue  
New York, New York 10017 . . . . . AA

American Institute of Steel  
Construction, Inc.  
101 Park Avenue  
New York, New York 10017 . . . . . AISC

American Iron and Steel Institute  
150 East 42nd Street  
New York, New York 10017 . . . . . AISI

American Welding Society  
2501 N. W. Seventh Street  
Miami, Florida 33125 . . . . .AWS

Architectural Aluminum  
Manufacturers Association  
35 East Wacker Drive  
Chicago, Illinois 60601. . . . . AAMA

Cast Iron Soil Pipe Institute  
2029 K Street, NW  
Washington, D. C. 20006. . . . .CISPI

Concrete Reinforcing Steel Institute  
228 North LaSalle Street  
Chicago, Illinois 60601. . . . . CRSI

Copper Development Association, Inc.  
405 Lexington Avenue  
New York, New York 10017 . . . . . CDA

Lead Industries Association, Inc.  
292 Madison Avenue  
New York, New York 10017 . . . . . LIA

Metal Building Manufacturers  
 Association  
 2130 Keith Building  
 Cleveland, Ohio 44115. . . . . MBMA

Metal Lath Association  
 12703 Triskett  
 Cleveland, Ohio 44111. . . . . .MLA

National Association of Architectural  
 Metal Manufacturers  
 228 North LaSalle Street  
 Chicago, Illinois 60601. . . . . .NAAMM

Rail Steel Bar Association  
 38 South Dearborn Street  
 Chicago, Illinois 60603. . . . . RSBA

Research Council on Riveted and  
 Bolted Structural Joints of the  
 Engineering Foundation  
 United Engineering Center  
 345 East 47th Street  
 New York, N. Y. 10017. . . . . RCRBSJEF

Steel Deck Institute  
 9836 W. Roosevelt Road  
 Westchester, Illinois 60153. . . . . .SDI

Steel Bar Mills Association  
 (formerly Rail Steel Bar  
 Association)  
 38 South Dearborn Street  
 Chicago, Illinois 60603. . . . . SBMA

Steel Door Institute  
 2130 Keith Building  
 Cleveland, Ohio 44115. . . . . .SDI

Steel Joist Institute  
 2001 Jefferson Davis Highway  
 Arlington, Virginia 22202. . . . . .SJI

Steel Scaffolding & Shoring Institute  
 2130 Keith Building  
 Cleveland, Ohio 44115. . . . . SSSI

The Steel Window Institute  
 2130 Keith Building  
 Cleveland, Ohio 44115. . . . . .SWI



Wire Reinforcement Institute  
5034 Wisconsin Avenue, NW  
Washington, D. C. 20016. . . . .WRI

GENERAL STANDARDS AND TESTING LABORATORIES

American Insurance Association  
85 John Street  
New York, New York 10038 . . . . .AIA

American National Standards Institute, Inc.  
(formerly United States of America  
Standards Institute, Inc. . . . .USASI)  
(formerly American Standards Association)  
1430 Broadway  
New York, New York 10018 . . . . .ANSI

American Society for Testing and  
Materials  
P. O. Box 7510  
Philadelphia, Pennsylvania 19101 . . . . .ASTM

Factory Mutual Engineering Division  
Standards-Laboratories Department  
1151 Boston-Providence Turnpike  
Norwood, Massachusetts 02062 . . . . .FMED

General Electric Company  
3198 Chestnut Street  
Philadelphia, Pennsylvania 19101 . . . . .GE

National Fire Protection Association  
470 Atlantic Avenue  
Boston, Massachusetts 02110 . . . . .NFIPA

National Sanitation Foundation  
Testing Laboratory, Inc.  
School of Public Health  
P. O. Box 1468  
Ann Arbor, Michigan 48106. . . . .NSFTL

United States of America  
Standards Institute, Inc.  
(See American National Standards, Inc. . . . .ANSI)

Underwriters' Laboratories, Inc.  
207 East Ohio Street  
Chicago, Illinois 60611. . . . .ULI

FIRE TESTING LABORATORIES (FLOOR, WALLS, ROOF AND SIMILAR TESTS)

National Bureau of Standards  
(Department of Commerce)  
Superintendent of Documents  
Government Printing Office  
Washington, D. C. 20234. . . . . NBS

The Ohio State University  
Building Research Laboratory  
2070 Neil Avenue  
Columbus, Ohio 43210 . . . . . OSU

Underwriters' Laboratories, Inc.  
207 East Ohio Street  
Chicago, Illinois 60611. . . . . ULI

Underwriters' Laboratories, Inc.  
333 Pfingsten Road  
Northbrook, Illinois 60062 . . . . . ULI

Underwriters' Laboratories, Inc.  
1655 Scott Boulevard  
Santa Clara, California 95050. . . . . ULI

University of California at Berkeley  
College of Engineering  
Berkeley, California 94720 . . . . . UCB

FLAMESPREAD TESTING LABORATORIES

Southwest Research Institute  
8500 Culebra Road  
San Antonio, Texas 78228 . . . . . SWRI

Underwriters' Laboratories, Inc.  
1655 Scott Boulevard  
Santa Clara, California 95050. . . . . ULI

Underwriters' Laboratories, Inc.  
333 Pfingsten Road  
Northbrook, Illinois 60062 . . . . . ULI

STRUCTURAL TESTING LABORATORIES

The Detroit Testing Laboratory, Inc.  
12800 Northend Avenue  
Detroit, Michigan 48237. . . . . DTL

Forest Products Laboratory  
 United States Department  
 of Agriculture  
 Madison, Wisconsin 53705 . . . . . FPL

General Electric Company  
 3198 Chestnut Street  
 Philadelphia, Pennsylvania 19101 . . . . . GE

Robert W. Hunt Company  
 810 South Clinton  
 Chicago, Illinois 60607. . . . . RWH

IIT Research Institute  
 (formerly Armour Research  
 Foundation)  
 10 West 35th Street  
 Chicago, Illinois 60616. . . . . IITRI

NAHB Research Foundation, Inc.  
 Research Laboratory  
 Rockville, Maryland. . . . . NAHB

H. C. Nutting Company  
 4120 Airport Road  
 Cincinnati, Ohio 45226 . . . . . HCN

The Ohio State University  
 Building Research Laboratory  
 2070 Neil Avenue  
 Columbus, Ohio 43210 . . . . . OSU

The Pennsylvania State University  
 Research Institute  
 University Park, Pennsylvania 16802. . . . . PSU

Pittsburgh Testing Laboratory  
 1330 Locust Street  
 Pittsburgh, Pennsylvania 15219 . . . . . PTL

University of Detroit  
 Research Institute  
 Detroit, Michigan 48221. . . . . UD

UNCLASSIFIED MISCELLANEOUS

The American Institute of Architects  
 1735 New York Avenue, NW  
 Washington, D. C. 20006. . . . . AIA

American Public Health Association  
1790 Broadway  
New York, New York 10017 . . . . . APHA

American Society of Civil Engineers  
United Engineering Center  
345 East 47th Street  
New York, New York 10017 . . . . . ASCE

American Society of Sanitary  
Engineering  
960 Illuminating Building  
Cleveland, Ohio 44113. . . . . ASSE

American Water Works Association  
2 Park Avenue  
New York, New York 10016 . . . . . AWWA

Building Officials and Code  
Administrators International, Inc.  
1313 East 60th Street  
Chicago, Illinois 60637. . . . . BOCA

Building Research Advisory Board  
Division of Engineering  
National Research Council  
2101 Constitution Avenue  
Washington, D. C. 20418. . . . . BRAB

International Association of Plumbing  
& Mechanical Officials  
5032 Alhambra Avenue  
Los Angeles, California 90032. . . . . IAMPO

International Conference of  
Building Officials  
5360 South Workman Mill Road  
Whittier, California 90601 . . . . . ICBO

Manufacturing Chemists' Association, Inc.  
1825 Connecticut Avenue, NW  
Washington, D. C. 20006. . . . . MCA

Mineral Fiber Products Bureau  
509 Madison Avenue  
New York, New York 10022 . . . . . MFPB

Mobile Homes Manufacturers  
 Association  
 20 North Wacker Drive  
 Chicago, Illinois 60606. . . . . MHMA

National Association of  
 Building Manufacturers  
 1619 Massachusetts Avenue, N. W.  
 Washington, D. C. 20036. . . . . NABM

National Association of Home Builders  
 National Housing Center  
 1625 L Street, NW  
 Washington, D. C. 20036. . . . . NAHB

National Clay Pipe Institute  
 P. O. Box 310  
 350 West Terra Cotta Avenue  
 Crystal Lake, Illinois 60014 . . . . . NCPI

National Insulation Manufacturers  
 Association  
 441 Lexington Avenue  
 New York, New York 10017 . . . . . NIMA

National Mineral Wool Insulation  
 Association  
 Rockefeller Center  
 1270 Sixth Avenue  
 New York, New York 10020 . . . . . NMWIA

National Research Council  
 Ottawa 2, Canada . . . . . NRC

National Society of Professional  
 Engineers  
 2029 K Street, NW  
 Washington, D. C. 20006. . . . . NSPE

Sheet Metal and Air Conditioning  
 Contractor's National  
 Association, Inc.  
 1611 North Kent Street  
 Arlington, Virginia 22209. . . . . SMACNA

Southern Building Code Congress  
 3617-Eighth Avenue, South  
 Birmingham, Alabama 35222. . . . . SBCC

Truss Plate Institute, Inc.  
Suite 800  
919 Eighteenth Street, NW  
Washington, D. C. 20006. . . . . TPI

WOOD AND WOOD PRODUCTS

Acoustical and Insulating Materials  
Association  
205 West Touhy Avenue  
Park Ridge, Illinois 60068 . . . . . AIMA

American Hardboard Association  
20 North Wacker Drive  
Chicago, Illinois 60606. . . . . AHA

American Institute of Timber  
Construction  
333 W. Hampden Avenue  
Englewood, Colorado 80110. . . . . AITC

American Plywood Association  
1119 A Street  
Tacoma, Washington 98401 . . . . . APA-DFPA

American Wood Preservers'  
Association  
1625 Eye St., N. W.  
Washington, D. C. 20006. . . . . AWPA

American Wood Preservers'  
Bureau  
P. O. Box 6085  
Arlington, Virginia 22206. . . . . AWPB

American Wood Preservers'  
Institute  
1651 Old Meadow Road  
McLean, Virginia 22101 . . . . . AWPI

Appalachian Hardwood  
Manufacturers, Inc.  
1015 Mercantile Library Building  
414 Walnut Street  
Cincinnati, Ohio 45202 . . . . . AHM

Association of Timber and Timber  
 Treatment of Inspection Agencies  
 729 Fisher Road  
 Grosse Pointe, Michigan 48230. . . . . ATTTIA

California Redwood Association  
 617 Montgomery Street  
 San Francisco, California 94111. . . . . CRA

Hardwood Plywood Manufacturers  
 Association  
 P. O. Box 6246  
 Arlington, Virginia 22206. . . . . HPMA

National Forest Products Association  
 1619 Massachusetts Avenue, NW  
 Washington, D. C. 20036. . . . . NFoPA

National Particleboard Association  
 2306 Perkins Place  
 Silver Springs, Maryland 20910 . . . . . NPA

Northeastern Lumber Manufacturers  
 Association, Inc.  
 13 South Street  
 Glen Falls, New York 12801 . . . . . NELMA

Northern Hardboard and Pine  
 Manufacturers Association, Inc.  
 501 Northern Building  
 Green Bay, Wisconsin 54301 . . . . . NHPMA

Product Fabrication Service  
 P. O. Box 5038  
 Madison, Wisconsin 53705 . . . . . PFS

Red Cedar Shingle and Handsplit  
 Shake Bureau  
 5510 White Building  
 Seattle, Washington 98101. . . . . RCSHSB

Lumber Manufacturers Association  
 805 Sterick Building  
 Memphis, Tennessee 38103 . . . . . SHLMA

Southern Forest Products  
 Association  
 P. O. Box 52468  
 New Orleans, Louisiana 70150 . . . . . SFPA  
 (Formerly Southern  
 Pine Association)

Timber Engineering Company  
5530 Wisconsin Ave., N. W.  
Washington, D. C. 20015. . . . . TECO

Truss Plate Institute, Inc.  
919-18th Street, N. W.  
Washington, D. C. 20006. . . . . TPI

Western Wood Products  
Association  
1500 Yeon Building  
Portland, Oregon 97204 . . . . . WWPA



## APPENDIX B

### ACCEPTED ENGINEERING PRACTICE STANDARDS

(See also appendices C, D, E, F and G for standards on specific materials or test of units or assemblies; some of which include engineering practice standards for specific applications.)

#### CONCRETE

Concrete Formwork-Recommended Practice for . . . .	ACI 347-68
Inspection & Testing Agencies for Concrete and Steel . . . . .	ASTM E329-70
Manufacturing Reinforced Concrete Floor and Roof Units-Recommended Practice for. . . . .	ACI 512-67
Reinforced Concrete-Building Code Requirements for . . . . .	ACI 318-1971
Reinforced Concrete Structures, Manual of Standard Practice for Detailing. . . . .	ACI 315-1965
Reinforced Gypsum Concrete-Specifications for . . . . .	ANSI A59.1-1954
Welding Reinforcing Steel, Metal Inserts and Connections in Reinforced Concrete Construction, Recommended Practices for . . . .	AWS D 12.1-61

#### ELECTRICAL ILLUMINATION

Daylighting-Recommended Practices of . . . . .	IES RP5-1962
Design Criteria for Lighting Interior Living Spaces . . . . .	IES RP11-1969
Electrical Code-Massachusetts State. . . . .	Mass-DPS-FPR 11
Industrial Lighting. . . . .	ANSI A 11.1-1970
Lighting Handbook. . . . .	IES-1972
Office Lighting-Recommended Practice . . . . .	IES RPI-1966
School Lighting-Recommended Practice . . . . .	IES RP3-1970

#### EQUIPMENT

Guide and Data Book, Applications. . . . .	ASHRAE, 1968
Guide and Data Book, Equipment . . . . .	ASHRAE, 1969
Guide and Data Book, Handbook of Fundamentals . . . . .	ASHRAE, 1967
<u>Air Conditioning and Ventilating</u> Air Conditioning and Ventilating Systems of Other Than Residence Type . . . . .	NFiPA 90A-1973

Air Conditioning, Warm Air Heating, Residence Type . . . . .	NFiPA 90B-1973
Blower and Exhaust Systems for Dust, Stock and Vapor Removal or Conveying . . . . .	NFiPA 91-1973
Gas-Fired Absorption Summer Air Conditioning Appliances . . . . .	ANSI Z 1.40.1-1969
Vapor Removal From Commercial Cooking Equipment . . . . .	NFiPA 96-1973
<u>Elevators and Lifts</u>	
Automotive Lifts . . . . .	USDC CS 142-65
Elevators, Dumbwaiters, Escalators and Moving Walks-Safety Code for . . . . .	ANSI A17.1-1971
Manlifts-Safety Standard for . . . . .	ANSI A90.1-1969
<u>Heating</u>	
Boiler Code and Unfired Pressure Vessel Code . . . . .	ASME-1971
Central Heating Gas Appliances-Approved Requirements for	
-Gas-Fired Gravity and Fan Type Floor Furnaces . . . . .	ANSI Z21.48-1967
-Gas-Fired Gravity and Fan Type Vented Wall Furnaces . . . . .	ANSI Z21.49-1972
-Gas-Fired Gravity and Forced Air Central Furnaces . . . . .	ANSI Z21.47-1971
-Gas-Fired Low Pressure Steam and Hot Water Boilers . . . . .	ANSI Z21.13-1972
Chimneys, Fireplaces and Venting Systems- Standard for . . . . .	NFiPA 211-1972
Flue Linings, Sizes of . . . . .	ANSI A62.4-1947
Gas-Fired Duct Furnaces . . . . .	ANSI Z21.34-1971
Gas-Fired Gravity and Fan Type Sealed Combustion System Wall Furnaces. . . . .	ANSI Z21.44-1971
Gas-Fired Heavy Duty Forced Air Heaters. . . . .	ANSI Z83.5-1967
Gas-Fired Room Heaters, Vol. 1, Vented Room Heaters-Approval Requirements for . . . . .	ANSI Z21.11.1-1971
Gas-Fired Single Firebox Boilers . . . . .	ANSI Z21.52-1971
Gas Unit Heaters . . . . .	ANSI Z21.16-1971
Oil Burning Equipment. . . . .	NFiPA 31-1972
Vented Decorative Gas Appliances . . . . .	ANSI Z21.50-1968
Venting Systems, For Temperature Type L-Testing Standards for . . . . .	ULI 641-1965
<u>Incinerators</u>	
Air Setting Refractory Mortar. . . . .	ASTM C178-1958
Domestic Gas-Fired Incinerators. . . . .	ANSI Z21.6-1969
Incinerator Standards. . . . .	11A-1970
Refractories for Incinerators. . . . .	ASTM C106-1967
<u>Refrigeration</u>	
Mechanical Refrigeration-Safety Code for. . . . .	ASHRAE 15-1970 also ANSI B9.1-1971

Unclassified Miscellaneous

- Draft Hoods, Listing Requirements for. . . .ANSI Z21.12-1937
- Mobile Homes, Body and Frame Design  
and Construction and Installation  
of Plumbing, Heating and Electrical  
Systems. . . . . NFiPA 501B-1973
- General Standards of Construction and  
Equipment for Hospital and Medical  
Facilities . . . . . USHEW HRA-74-4000
- One- and Two-Family Dwelling Code. . . . . BOCA, AlnA, SSBC,  
ICBO-1971

FIRE PROTECTION AND SAFETY PRACTICES

- Life Safety Code . . . . .NFiPA 101-1973
- NOTE: NFiPA 101-1973 is acceptable for  
matters of design of exits not provided  
for by this Code. . . . . Finish and Con-  
struction requirements incorporated therein  
are not applicable.
- Aircraft Hangars . . . . .NFiPA 409-1973
- Cutting and Welding-Oxygen Fuel  
Gas Systems for . . . . .NFiPA 51-1973
- in Confectionery Manufacturing Plants. . . . NFiPA 657-1967
- Dip Tanks Containing Flammable or  
Combustible Liquids. . . . . NFiPA 34-1966
- Dry-Cleaning and Dry-Dyeing, and the Keeping,  
Storage and Use of Cleaning and Dyeing  
Fluid in Connection Therewith. . . . . Mass-DPS FPR 2-1963
- Dry Cleaning and Dry Dyeing Plants . . . . . NFiPA 32-1972
- Dust Explosions and Ignition, Prevention of  
-in Country Grain Elevators. . . . . NFiPA 64-1959
- in Flour and Feed Mills and  
Allied Grain Storage Elevators. . . . . NFiPA 61C-1973
- in Grain Elevators, Bulk Handling  
Facilities. . . . . NFiPA 61B-1973
- in Industrial Plants-Fundamental Principles  
for . . . . . NFiPA 63-1971
- in Plastic Industry . . . . . NFiPA 654-1963
- in Spice Grinding Plants. . . . . NFiPA 656-1959
- in Starch Factories . . . . . NFiPA 61A-1973
- Explosion Venting Guide. . . . . NFiPA 68-1954
- Film, Motion Picture, Cellulose Nitrate-  
Storing and Handling of. . . . . NFiPA 40-1967
- Flammable Fluids, Solids, or Gases-  
Keeping, Storage, Manufacture or Sale  
in Limited Quantities. . . . . Mass-DPS FPR 13-1965
- Garages
- Construction and Maintenance of Buildings  
or other Structures Used as Garages and  
the related Storage, Keeping and Use of  
Gasoline. . . . . Mass-DPS FPR 4-1968

-Parking Structures. . . . .NFiPA 88A-1973  
 -Repair Garages. . . . .NFiPA 88B-1973  
 Gases, Liquefied Petroleum  
 -Storage and Handling of . . . . . NFiPA 58-1972  
 -at Utility Gas Plants-Storage and Handling  
 of. . . . . NFiPA 59-1968  
 Construction, Location, Installation and  
 Operation of Liquefied Petroleum Gas  
 Systems, Gas Piping and Appliance  
 Installations in Buildings. . . . . Mass-DPS FPR 5-1962  
 Guide for Smoke and Heat Venting. . . . . NFiPA 204-1968  
 Incinerators, Rubbish Handling . . . . . NFiPA 82-1972  
 Liquids, Flammable . . . . .NFiPA Vol. 1-1969-70  
 Liquids, Flammable and Combustible . . . . . NFiPA 30-1973  
 Outdoor Assembly, Places of (Grandstands,  
 Tents and Air Supported Structures). . . . .NFiPA 102-1972  
 Piers and Wharves-Construction and  
 Protection of . . . . . NFiPA 87-1971  
 Plastics-Manufacturing and Handling  
 of . . . . .Mass-DPS FPR 6-1948  
 Pulverized Fuel Systems-Installation  
 and Operation of . . . . . NFiPA 60-1973  
 Pyroxylin Plastics in Factories-  
 Storage, Handling and Use of . . . . . NFiPA 42-1967  
 Pyroxylin Plastics in Warehouses, Wholesale  
 and Retail Stores. . . . . NFiPA 43-1967  
 Recommended Safe Practices for Gas Shielded  
 Arc Welding. . . . . AWS A6.0-66  
 Safe Practices for Welding and Cutting  
 Containers That Have Held Combustibles . . . . . AWS A6.0-65  
 Safety in Welding and Cutting. . . . . ANSI Z49.1-1967  
 Safety Film, Motion Picture. . . . . ANSI PH22.31-1967  
 Spray Finishing Using Flammable and  
 Combustible Materials. . . . . NFiPA 33-1973  
 Underground Flammable and Combustible  
 Liquid Tanks, Leakage From . . . . .NFiPA 329-1965

GLASS

Safety Glazing Material Used in Buildings,  
 Performance, Specifications and Methods  
 of Test for . . . . . ANSI Z97.1-1972

INTERIOR FINISHES

Gypsum Base for Veneer Plasters, Standard  
 Specification for. . . . . ASTM C588-68

Gypsum Board Products and Gypsum	
Partitions Tile or Block, Physical	
Testing of . . . . .	ASTM C473-70
Gypsum Lath, Standard Specification for. . . . .	ASTM C37-69
Gypsum Plasters and Gypsum Concrete-	
Standard Method for Physical Testing of. . . . .	ASTM C472-73
Gypsum Plastering-Specifications for. . . . .	ANSI A42.1-1964
Gypsum Plastering-Specifications for. . . . .	ASTM C28-68
Gypsum Veneer Plaster. . . . .	ASTM C587-68
Gypsum Veneer Plaster-Specifications for	
Application. . . . .	Gyp. Assoc.-1970
Gypsum Wallboard-Specifications for. . . . .	ASTM C36-73
Application and Finishing of Wallboard	
Specifications for. . . . .	ANSI A97.1-1965
Interior Lathing and Furring-	
Specifications for. . . . .	ANSI A42.4-1967
Interior Marble-Specifications for. . . . .	ANSI A94.1-1961
Portland Cement and Portland Cement-	
Lime Plastering, Exterior (Stucco)	
and Interior, Lathing and Furring for,	
Specifications for. . . . .	ANSI A42.3-1971
Portland Cement and Portland Cement-	
Lime Plastering, Exterior (Stucco)	
and Interior, Lathing and Furring for,	
Specifications for. . . . .	ANSI A42.2-1971
Screw Type Steel Framing Members to	
Receive Gypsum Board. . . . .	GA 203-72
Tile, Ceramic, Installed with	
-Chemical Resistant, Water Cleanable	
Tile-Setting Epoxy. . . . .	ANSI A108.6-1969
-Dry-Set Portland Cement Mortar. . . . .	ANSI A108.5-1967
-Water Resistant Organic Adhesives. . . . .	ANSI A108.4-1968
	USDC CS181-1952
Tile, Ceramic Mosaic, Installed with	
Portland Cement Mortar. . . . .	ANSI A108.2-1967
Tile, Glazed Ceramic Wall, Installed with	
Portland Cement Mortar. . . . .	ANSI A108.1-1967
Tile, Quarry and Paver, Installed with	
Portland Cement Mortar. . . . .	ANSI A108.3-1967
Vermiculite Plastering and Vermiculite	
Acoustical Plastic for Sound	
Conditioning-Standard Specifications	
for. . . . .	VI-1963

MASONRY

Cold Weather Masonry Construction. . . . .	SCPI(BIA)-1968
Design and Construction of Loadbearing	
Concrete Masonry-Specifications for. . . . .	NCMA-1970
Engineered Brick Masonry-Requirements for. . . . .	SCPI(BIA)-1969
NOTE: This standard (SCPI(BIA)-1969) is only	
applicable to brick masonry of solid	
masonry units made from clay or shale.	

Marble, Exterior Thin, in Curtain or Panel  
 Walls-Specifications for. . . . .ANSI A94.3-1961  
 Marble, Exterior Thin Veneer-  
 Specifications for. . . . .ANSI A94.2-1961  
 Marble, Interior-Specifications for. .( See Interior Finishes)  
 Masonry-Building Code Requirements for. . . .ANSI A41.1-1953  
 Reinforced Masonry-Building Code  
 Requirements for. . . . .ANSI A41.2-1960  
 Shotcreting-Recommended Practice for. . . . . ACI 506-1966

ALUMINUM

Aluminum Construction Manual, Aluminum  
 Formed Sheet Building Sheathing Design  
 Guide. . . . . AA-1969  
 Aluminum Construction Manual, Specifications  
 for Aluminum Structures. . . . . AA-1971

STEEL

Architecturally Exposed Structural Steel-  
 Specification for. . . . . AISC-1960  
 Deep Longspan Steel Hoists, DLJ  
 and DLH Series . . . . . SJI/AISC-1972  
 Design of Cold-Formed Steel Structural  
 Members-Specification for. . . . . AISI-1968  
 Design, Fabrication and Erection of Structural  
 Steel for Buildings-Specification for. . . . . AISC-1969  
 Supplement No. 1. . . . . AISC-1970  
 Supplement No. 2. . . . . AISC-1971  
 Design of Light Gage Cold-Formed Stainless  
 Steel Structural Members-Specification for. . . . AISI-1968  
 Design Practices Manual for Metal  
 Buildings, Recommended. . . . . MBMA-1971  
 Gas Systems for Welding and Cutting (See Fire Protection  
 and Safety Practice)  
 Light Gauge Steel Studs, Runners, and  
 Rigid Furring Channels, Specification for. . .ASTM C645-1970  
 Longspan Steel Joists, LJ Series and  
 LH Series-Standard Specifications for. . . . . SJI/AISC-1972  
 Open Web Steel Joists, J-Series and H-Series-  
 Standard Specification for. . . . . SJI/AISC-1972  
 Steel Drill Screw Application of Gypsum Sheet  
 Material to Light Gage Steel Studs,  
 Specification for. . . . . ASTM C646-72  
 Structural Applications of Steel Cables for  
 Buildings-Criteria for. . . . . AISI-1973  
 Structural Joints Using ASTM A325 or A490 Bolts-  
 Specification for . . . . . AISC 1972  
 Welding Code, Structural . . . . . AWS D1.1-72

## WOOD AND WOOD PRODUCTS

Adhesives for Field Gluing Plywood to	
Wood Framing. . . . .	APA-1973
APA Glued Floor System. . . . .	APA-1972
Hurricane-Resistant Plywood Construction. . . . .	APA-1966
Pile Foundations Know How. . . . .	AWPI-1969
Pole Building Design. . . . .	AWPI-1969
Plywood Beams-Design and Fabrication of. . . . .	APA-1972
Plywood Construction Systems. . . . .	APA-1972
Plywood Curved Panels-Design of. . . . .	APA-1968
Plywood Curved Panels-Fabrication of. . . . .	APA-1971
Plywood Design Specifications. . . . .	APA-1966
Plywood Diaphragm Construction. . . . .	APA-1970
Plywood Folded Plate Fabrication. . . . .	APA-1971
Preservative Treatment of Wood-Standard	
Instructions for the Inspection of. . . . .	AWPA M2 1962
Pressure Treated Timber Foundation Piles for	
Permanent Structures. . . . .	AWPI-1967
Pressure-Treated Wood Products--Standard for	
the Care of. . . . .	AWPA M4-1962
Span Tables for Joists and Rafters in	
Residential Construction. . . . .	NFoPA-1970
Stress Grade Lumber and Its Fastenings-	
National Design Specifications for. . . . .	NFoPA-1973
Structural Design Data-Wood. . . . .	NFoPA-1970
Timber Construction Manual. . . . .	AITC-1966
Timber Construction Standards	
(except AITC 117, 118 and 120). . . . .	AITC-100-1972
Timber Structural Glued Laminated	
-Inspection Manual for. . . . .	AITC 200-73
-Standard for. . . . .	AITC 103-65-1965
Trusses, Metal Plate Connected Wood Roof. . . . .	TPI-1970
Wood Handbook. . . . .	USDA Handbook No. 72-1955

## UNCLASSIFIED MISCELLANEOUS

Billboards, Signs and other Advertising Devices-	
Rules and Regulations for the Control and	
Restriction of. . . . .	Mass-OAB-1973
Building Materials and Equipment Coordination	
of Dimensions of. . . . .	ANSI A62.1-1957
Chimneys, Factory-Built. . . . .	ANSI A131.1-1971
	ULI 103-1964
Clay Flue Linings-Sizes of. . . . .	ASTM C315-72
Demolition, Safety Requirements for. . . . .	ANSI A10.6-1969
Fallout Shelters-Suggested Building Code	
Provisions for. . . . .	DOD-OCD-TR-36-1966
Fibrous Glass Air Duct Construction Standards. . . . .	SMACNA-1972
Floor and Wall Openings, Railings, and	
Toe Boards-Safety Requirements for. . . . .	ANSI A12.1-1967
Floors-Waterproofing of. . . . .	NFiPA 92-1972

Homes-Prefabricated. . . . .USDC CS 125-1947  
Hospital and Medical Facilities-General  
Standards of Construction and  
Equipment for. . . . . USHEW HRA-74-4000  
Installing Vitrified Clay Sewer Pipe. . . . .ASTM C12-72  
Loads, Minimum Design in Buildings and Other Structures,  
Building Code Requirements for. . . . .ANSI A58.1-1972  
Safety Code for Vertical Shoring-  
Recommended Standard. . . . .SSSI-68  
Signs and Outdoor Display Structures-  
Standards for. . . . . ANSI A60.1-1949  
Swimming Pools and Other Public Bathing Places,  
Recommended Practice for Design, Equipment  
and Operation. . . . . APHA-1957  
Swimming Pools-Minimum Standards for. . Mass-DPH Article VI-1969  
Welding in Building Construction-Code for. . .AWS D1.0-69-1969



## APPENDIX C

### MATERIAL STANDARDS

(See also Appendix D for standards for tests of specific materials.)

#### CONCRETE

Aggregates, Concrete Specifications for.....ASTM C33-71a  
Aggregates, Lightweight for Structural  
Concrete-Specifications for.....ASTM C330-69  
Aggregates, Lightweight, for Concrete  
Masonry Units.....(See Masonry)  
Aggregates, Lightweight, for Insulating  
Concrete-Specifications for.....ASTM C332-66  
Forms for One-way Concrete Joist Construction-  
Types and Sizes of.....USDC PS 16-69  
Gypsum Concrete-Specifications for.....ASTM C317-70  
Manufacturing Reinforced Concrete Floor and  
Roof Units-Recommended Practice for.....ACI 512-67  
Masonry Units-Concrete.....(See Masonry)  
Natural Cement-Specifications for.....ASTM C10-70a  
Portland Cement-Specifications for.....ASTM C150-72  
Ready Mix Concrete-Specifications for.....ASTM C94-72  
Reinforcing.....(See Metals)  
Thin-Section Precast Concrete Construction-  
Minimum Requirements for.....ACI 525-1963  
Vermiculite Concrete-Roofs and Slabs on  
Grade, Specifications for.....ANSI A122.1-1965  
Waterproof Paper for Curing Concrete-  
Specifications for.....ASTM C171-69

#### INTERIOR FINISHES

Adhesives, Organic, for Installation of  
Ceramic Tile-Standard for.....ANSI A136.1-67  
Aggregates, Inorganic, for use in  
Gypsum Plaster-Specifications for.....ASTM C35-70  
Dry-Set Portland Cement Mortar-  
(For Ceramic Tile).....(See Masonry)  
Epoxy, Chemical Resistant, Water Cleanable  
Tile-Setting and Grouting-Standard  
Specifications for.....ANSI A118.3-1969  
Gypsum-Specifications for.....ASTM C22-1950  
Gypsum and Gypsum Products, Chemical Analysis  
of-Standard Methods for.....ASTM C471-72  
Gypsum Base for Veneer Plaster--Specifications  
for.....ASTM C588-68  
Gypsum Board Products and Gypsum Partition  
Tile or Block, Physical Testing of-  
Standard Methods for.....ASTM C473-70

Gypsum Lath-Specifications for.....ASTM C37-69  
 Gypsum Plasters-Specifications for.....ASTM C28-68  
 Gypsum Plasters and Gypsum Concrete, Physical  
 Testing of-Standard Methods for.....ASTM C472-73  
 Gypsum Veneer Plaster-Specifications for.....ASTM C587-68  
 Gypsum Wallboard-Specifications for.....ASTM C36-73  
 Lime Hydrated, Normal Finishing-Specifications for....ASTM C6-68  
 Lime Hydrated, Special Finishing-Specifications for..ASTM C206-68  
 Lime-Cement Stucco-Standard Specifications for...ANSI A42.5-1960  
 Quicklime and Hydrated Lime-Method of  
 Physical Testing of.....ASTM C110-71  
 Quicklime for Structural Purposes-Specifications for..ASTM C5-68  
 Tile, Ceramic-Standard Specifications for.....ANSI A137.1-67  
 Tile, Structural Clay-Specifications for.....ASTM C57-1957

MASONRY

Aggregate, Fine-Effect of Organic Impurities in,  
 on Strength of Mortar.....ASTM C87-69  
 Aggregates, Lightweight, for Concrete Masonry Units-  
 Specifications for.....ASTM C331-69  
 Aggregate for Masonry Grout-Specifications for.....ASTM C404-70  
 Aggregate for Masonry Mortar-Specifications for.....ASTM C144-70  
 Brick, Building (Solid Masonry Units Made from  
 Clay or Shale)-Specifications for.....ASTM C62-69  
 Brick, Concrete Building-Specifications for.....ASTM C55-71  
 Brick, Face, Calcium Silicate (Sand Lime Brick)-  
 Specifications for.....ASTM C73-72  
 Brick, Facing (Solid Masonry Units Made from  
 Clay or Shale)-Specifications for.....ASTM C216-71  
 Brick, Hollow (Solid Masonry Units Made from  
 Clay or Shale)-Specifications for.....ASTM C652-1970  
 Brick, Sand-Lime Building-Specifications for.....ASTM C73-72  
 Cement, Blended Hydraulic-Specifications for.....ASTM C595-1968  
 Cement, Keene's-Specifications for.....ASTM C61-1964  
 Cement, Masonry-Specifications for.....ASTM C91-71  
 Ceramic Tile (Veneers).....(See Interior Finishes)  
 Clay Facing Tile, Structural-Specifications for.....ASTM C212-70  
 Clay Load Bearing Wall Tile, Structural-  
 Specifications for.....ASTM C34-70  
 Clay Nonload Bearing Screen Tile, Structural-  
 Specification for.....ASTM C530-70  
 Clay Nonload Bearing Wall Tile, Structural-  
 Specification for.....ASTM C56-71  
 Concrete Masonry, the Design and Construction  
 of Load Bearing.....NCMA-1971  
 Concrete Masonry Units, Hollow Load Bearing-  
 Specifications for.....ASTM C90-70  
 Concrete Masonry Units, Hollow Nonload Bearing-  
 Specifications for.....ASTM C129-71  
 Concrete Masonry Units, Solid Load Bearing-  
 Specifications for.....ASTM C145-71  
 Dry-Set Portland Cement Mortar-Standard  
 Specifications for.....ANSI A118.1-72

Glazed Units-Ceramic Glazed Structural Clay  
     Facing Tile, Facing Brick, and Solid Masonry  
     Units-Specifications for.....ASTM C126-71  
 Gypsum Partition Tile and Block-  
     Specification for.....ASTM C52-72  
 Lime, Hydrated for Masonry Purposes-  
     Specification for.....ASTM C207-68  
 Limes.....(See Interior Finishes)  
 Masonry Unit, Chemical Resistant.....ASTM C279-1954  
 Mineral Fiber Block and Board Thermal  
     Insulation.....ASTM C612-1967T  
 Mortar and Grout for Reinforced Masonry-  
     Specification for.....ASTM C476-71  
 Mortar for Unit Masonry-Specification for.....ASTM C270-71  
 Portland Cement-Specification for.....(See Concrete)  
 Refractories, Castable .....ASTM C401-1968

**METAL**

Alloy Steel Bolts, Quenched and Tempered, for  
     Structural Steel Joints-Standard Specifications  
     for.....ASTM A490-71  
 Alloy Steel Sheets and Strip, Regular Quality  
     Hot-Rolled and Cold Rolled-Specification for.....ASTM A506-64  
 Aluminum-Alloy Bars, Rods and Wire-  
     Standard Specifications for .....ASTM B211-72  
 Aluminum-Alloy Extruded Bars, Rods, Shapes  
     and Tubes-Standard Specifications for.....ASTM B221-72  
 Aluminum-Alloy Die and Hand Forgings-  
     Standard Specifications for.....ASTM B247-73  
 Aluminum Alloy Seamless Pipe and  
     Seamless Extruded Tubing  
     Standard Specifications for.....ASTM B241-72  
 Aluminum Alloy Sheet and Plate-  
     Standard Specifications for.....ASTM B209-72a  
 Aluminum-Alloy Standard Structural Shapes,  
     Rolled or Extruded-Standard Specifications for ....ASTM B308-72  
 Aluminum-Alloy Drawn Seamless Tubes-  
     Standard Specifications for.....ASTM B210-72  
 Aluminum-Alloy Extruded Structural Pipe  
     and Tube-Standard Specifications for .....ASTM B429-72  
 Aluminum-Alloy Round Welded, Tubes-  
     Standard Specifications for .....ASTM B313-72  
 Aluminum-Alloy Rivet and Cold Heading  
     Wire and Rods-Standard Specifications for.....ASTM B316-72  
 Aluminum-Base Alloy Die Castings-Standard  
     Specifications for .....ASTM B85-73  
 Aluminum Alloy Permanent Mold Castings-  
     Standard Specifications for .....ASTM B108-72  
 Aluminum Alloy Sand Castings-Standard  
     Specifications for .....ASTM B26-72  
 Aluminum Sliding Glass Doors-Specifications for.....AAMA 402.7-71  
 Aluminum Windows-Specifications for.....AAMA 302.7-71  
 Bare Mild Steel Electrodes and Fluxes for  
     Submerged Arc Welding-Specifications for.....AWS A5.17-69

Bolts, High Strength, for Structural Steel  
     Joints Including Suitable Nuts and Plain  
     Hardened Washers-Specifications for.....ASTM A325-71  
 Bolts and Studs, Quenched and Tempered Steel,  
     Specifications for.....ASTM A449-68  
 Carbon and Alloy Steel Nuts for Bolts for  
     High-Pressure and High-Temperature Service-  
     Specifications for.....ASTM A194-73  
 Carbon-Steel Castings Suitable for Fusion  
     Welding for High Temperature Service-  
     Specifications for.....ASTM A216-70A  
 Carbon Steel Nuts-Specifications for.....ASTM A563-72  
 Carbon Steel Plates of Structural Quality,  
     Low and Intermediate Tensile Strength-  
     Specifications for, (Plate 2 inches and  
     under in thickness).....ASTM A283-70a  
 Carbon Steel Strip, Cold-Rolled-  
     Specifications for.....ASTM A109-72  
 Castings, Mild-to-Medium Strength Carbon  
     Steel for General Application-  
     Specifications for.....ASTM A27-71  
 Castings, Gray Iron-Specification for.....ASTM A48-71  
 Cold-Formed Welded and Seamless Carbon  
     Steel Structural Tubing in Rounds  
     and Squares-Specifications for.....ASTM A500-72  
 Steel Castings for Structural Purposes,  
     High Strength-Specifications for.....ASTM A148-71  
 Electrodes, Low Alloy Steel Covered Arc  
     Welding-Specifications for.....AWS A5.5-69  
 Electrodes, Mild Steel Arc Welding  
     Specifications for.....AWS A5.1-69  
 Forgings, Alloy Steel for General Industrial  
     Use-Specifications for.....ASTM A237-67  
 Forgings, Carbon Steel for General Industrial  
     Use-Specifications for.....ASTM A235-67  
 General Requirements for Carbon and High  
     Strength Low Alloy Steel, Hot Rolled  
     Strip, Hot Rolled Sheets, and Cold Rolled  
     Sheets-Specifications for.....ASTM A568-71  
 High Strength, Low Alloy Structural Steel  
     with 50,000 psi minimum yield point to  
     4 inches thick-Specifications for.....ASTM A588-71  
 Hot-Formed Welded and Seamless Carbon Steel  
     Structural Tubing-Specifications for.....ASTM A501-71a  
 Hot-Formed Welded and Seamless High-Strength  
     Low-Alloy Structural Tubing-  
     Specifications for.....ASTM A618-71  
 Hot Rolled Carbon Steel Sheets and Strip,  
     Structural Quality-Specifications for.....ASTM A570-72  
 Steel Sheet, Zinc Coated (Galvanized) by  
     the Hot-Dip Process for Roofing,  
     Specification for.....ASTM A361-71

Steel, Sheet, Cold Rolled, Long Terne  
     Coated, Specification for.....ASTM A308-69  
 Low Carbon Steel, External and Internal  
     Threaded, Standard Fasteners-  
     Specification for.....ASTM A307-68  
 Mild Steel Electrodes for Flux-Cored Arc  
     Welding-Specifications for.....AWS A5.20-69  
 Mild Steel Electrodes for Gas Metal-Arc  
     Welding-Specifications for.....AWS A5.18-69  
 Piles, Welded and Seamless Steel Pipe-  
     Specifications for.....ASTM A252-71  
 Pipe, Metal.....(See Plumbing and Piping)  
 Reinforcement, Axle-Steel Deformed Bars  
     for Concrete-Specifications for.....ASTM A617-72  
 Reinforcement, Deformed Billet-Steel Bars  
     for Concrete-Specifications for.....ASTM A615-72  
 Reinforcement, Deformed Steel Wire for  
     Concrete-Specification for.....ASTM A496-72  
 Reinforcement, Rail-Steel Deformed Bars  
     for Concrete-Specification for.....ASTM A616-72  
 Reinforcement, Steel Wire, Cold-Drawn, for  
     Concrete-Specifications for.....ASTM A82-72  
 Reinforcement, Steel Wire, Welded Fabric for  
     Concrete-Specifications for.....ASTM A185-72  
 Reinforcement, Welded Deformed Steel Wire  
     Fabric for Concrete.....ASTM A497-72  
 Seven-Wire Stress-Relieved Strand, Uncoated,  
     for Prestressed Concrete-Specifications for.....ASTM A416-68  
 Steel Drill Screw Application of Gypsum  
     Sheet Material to Light Gauge Steel Stud.....ASTM C646-72  
 Uncoated Stess-Relieved Wire for Prestressed  
     Concrete-Specifications for.....ASTM A421-72  
 Sheet Piling Steel-Specifications for.....ASTM A328-70  
 Steel, Cold-Rolled Sheet, Carbon Structural-  
     Specifications for.....ASTM A611-72  
 Steel, Hot-Rolled and Cold-Rolled Sheet and  
     Strip, High-Strength, Low-Alloy Columbium  
     and/or Vanadium-Specifications for.....ASTM A607-70  
 Steel, Hot-Rolled and Cold-Rolled Sheet and  
     Strip, High-Strength, Low-Alloy with  
     Improved Corrosion Resistance  
     Specifications for.....ASTM A606-71  
 Stainless and Heat-Resisting Chromium Steel  
     Plate, Sheet and Strip-Standard for.....ASTM A176-72  
 Stainless and Heat-Resisting Chromium-Nickel  
     Steel Plate, Sheet, and Strip-Standard for.....ASTM A167-70  
 Steel Structural Rivets-Specifications for.....ASTM A502-65  
 Steel Studs, Light Gauge, Runners and  
     Rigid Furring Channels, Specifications for.....ASTM C645-70  
 Structural Steel-Specifications for.....ASTM A36-70a  
 Structural Steel, High Strength-  
     Specifications for.....ASTM A440-70a  
 Structural Steel, High Strength Low Alloy-  
     Specifications for.....ASTM A242-70a

Structural Steel, High Strength Low Alloy  
 Columbiun Vanadium-Specifications for.....ASTM A572-72  
 Structural Steel, High Strength Low Alloy  
 Manganese Vanadium-Specifications for.....ASTM A441-70a  
 Structural Steel, High Yield Strength,  
 Quenched and Tempered Alloy Steel Plate,  
 Suitable for Welding, Specifications for.....ASTM A514-70  
 Structural Steel with 42,000 psi Minimum Yield  
 Point ( $\frac{1}{2}$  in. Maximum Thickness)-  
 Specification for.....ASTM A529-72

ROOFING AND SIDING

Asphalt for Dampproofing and Waterproofing-  
 Specifications for.....ASTM D449-71  
 Asphalt for Use in Constructing Built-Up  
 Roof Coverings-Specifications for.....ASTM D312-71  
 Asphalt Roll Roofing Surfaced with  
 Mineral Granules-Specification for.....ASTM D249-68  
 Asphalt Roll Roofing Surfaced with Powdered  
 Talc or Mica-Specifications for.....ASTM D224-68  
 Asphalt Shingles Surfaces with Mineral  
 Granules-Specifications for.....ASTM D225-70  
 Asphalt Siding Surfaced with Mineral  
 Granules-Specifications for.....ASTM D699-70  
 Fiberboard Nail-Base Sheathing-  
 Standard Specification for.....ASTM D2277-72  
 Fiber Insulation Board, Structural-  
 -Manufacturers Standards for Fiberboard  
 Nail-Base Sheathing .....IB Spec. No. 2-72  
 -Manufacturers Standards for Insulating  
 Roof Deck.....IB Spec. No. 1-70  
 -Method of Testing (Made from Vegetable  
 Fiber).....ASTM C209-66  
 -Specifications for (Made from Vegetable  
 Fiber).....ASTM C208-66  
 Formboard, Structural Insulating (Made from  
 Vegetable Fibers)-Specification for.....ASTM C532-66  
 Gypsum Sheathing Board-Specification for.....ASTM C79-67  
 Wood Shingles (Red Cedar, Tidewater, Red  
 Cypress and California Redwood).....USDC CS 31-52

WOOD AND WOOD PRODUCTS

American Softwood Lumber Standard.....USDC PS20-70  
 Fireretardant Pressure Treatment, Plywood.....AWPA C27-70  
 Fireretardant Pressure Treatment,  
 Structural Lumber.....AWPA C20-70  
 Glue Laminated Structural Lumber Standards-  
 Structural Glued Laminated Southern Pine.....SPIB-65  
 Hardboard, Commercial Standard for.....USDC CS 251-63  
 Method for Establishing Structural  
 Grades of Lumber.....ASTM D245-70

Particleboard-Commercial Standard for.....USDC CS 236-66  
 Piles, Timber, Round-Specifications for.....ASTM D25-70  
 Piles, Wood Foundation, Creosotol.....AWPA C12-69  
 Plywood-Preservative Treatment for  
   Pressure Process.....AWPA C9-72  
 Preservative Treatment  
   -Of Lumber, Timber, Bridge Ties, and  
     Mine Ties (All Species)-Standards for.....AWPA C2-72  
   -Of Piles by Pressure Process-Standards for.....AWPA C3-72  
   -Of Poles by Pressure Process-Standards for.....AWPA C4-72  
   -By Pressure Process-All Timber Products-  
     Standards for.....AWPA C1-72  
 Quality Control Standards for Pressure-  
   Treated Lumber and Plywood  
   -With Creosote or Creosote Coal Tar  
     Solution (for Above Ground Use).....AWPB-LP-5-71  
   -With Creosote or Creosote Coal Tar  
     Solution (for Ground Contact).....AWPB-LP-55-71  
   -With Heavy Petroleum Solvent-Penta  
     Solution (for Above Ground Use).....AWPB-LP-7-71  
   -With Heavy Petroleum Solvent-Penta  
     Solution (for Ground Contact).....AWPB-LP-77-71  
   -With Light Petroleum Solvent-Penta  
     Solution (for above ground use).....AWPB-LP-3-71  
   -With Light Petroleum Solvent-Penta  
     Solution (for Ground Contact).....AWPB-LP-33-71  
   -With Volatile Petroleum Solvent (LPG)-  
     Penta Solution (for Above Ground Use).....AWPB-LP-4-71  
   -With Volatile Petroleum Solvent (LPG)-  
     Penta Solution (for Ground Contact).....AWPB-LP-44-71  
   -With Water-Borne Preservatives (for  
     Above Ground Use).....AWPB-LP-2-71  
   -With Water-Borne Preservatives (for  
     Ground Contact).....AWPB-LP-22-71  
 Shingles.....(See Roofing and Siding)  
 Glued Laminated Structural Lumber  
   Standards  
   -Structural Glued Laminated Members and  
     Laminations Before Gluing of Southern  
     Pine, Pacific Coast Douglas Fir and  
     Western Hemlock by Pressure Process.....AWPA C28-72  
   -Structural Glued Laminated Timber.....USDC PS 56-73  
   -Structural Glued Laminated Timber of  
     Douglas Fir, Western Larch, Southern  
     Pine and California Redwood.....AITC 117-1971  
   -U. S. Product Standard PSI-66 for  
     Softwood Plywood-Construction and  
     Industrial.....USDC-1970

UNCLASSIFIED MISCELLANEOUS

Felt-Methods of Testing.....ASTM D461-72  
 Flammability of Flexible Plastic-  
   Method of Test for.....ASTM D568-72

**Flammability of Self-Supporting Plastic-**  
 Method of Test for.....ASTM D635-72  
**Formboard, Gypsum-Specification for.....ASTM C318-67**  
**Insulated Metal Roof Deck Standard.....FMED Standard 4450**  
**Mortar, Ground Fire Clay.....ASTM C105-1947**  
**Perlite Loose Fill Insulation-**  
 Standard Specifications for.....ASTM C549-67  
**Plastics-Defintions of Terms Relating to.....ASTM D883-72**  
**Plastics, Deformation of, Under Load-**  
 Method of Test for.....ASTM D621-64  
**Preservatives for Wood**  
 -Creosote-Standards for .....AWPA P 1-65  
 -Creosote, Coal Tar Solutions-Standards for.....AWPA P 2-68  
 -Oil-Borne Preservative-Standards for.....AWPA P 8-64  
 -Oil-Borne Solvents-Standards for.....AWPA P 9-72  
 -Water-Borne Preservatives-Standards for.....AWPA P 5-72  
**Thickness of Solid Electrical Insulation-**  
 Method of Test for.....ASTM D374-73  
**Vermiculite Loose Fill Insulation-**  
 Standard Specifications for.....ASTM C516-67



## APPENDIX D

### STRUCTURAL UNIT TEST STANDARDS

(See also appendices B and C for engineering practice standards and material standards which contain unit test methods.)

#### CONCRETE

Coarse Aggregates, Resistance to Abrasion of Small Size, by use of the Los Angeles Abrasion Machine-Test for.....	ASTM C131-69
Fine and Coarse Aggregates Sieve or Screen Analysis of-Test of (A 37.8-1967).....	ASTM C136-71
Concrete, Obtaining and Testing Drilled Cores and Sawed Beams of.....	ASTM C42-68
Concrete Test	
-Compression and Flexure Test Specimens in the Field, Making and Curing.....	ASTM C31-1966
-Sampling Fresh.....	ASTM C172-1968
-Specimens in the Laboratory-Making and Curing.....	ASTM C192-69
Concrete, Molded Cylinders-Test for Compressive Strength of.....	ASTM C39-72
Lightweight Insulating Concrete, Compressive Strength-Test for.....	ASTM C495-69
Concrete Masonry Units-Sampling and Testing (A 84.1-1967).....	ASTM C140-70
Concrete Masonry Units, Hollow Load Bearing- Specifications for.....	ASTM C90-70
Concrete Masonry Units, Solid Load Bearing- Specifications for (A 81.1-1967).....	ASTM C145-71
Concrete, Hardened Portland Cement-Test for Cement Content of (A 1.22-1967).....	ASTM C85-66
Concrete, Portland Cement-Test for Slump of.....	ASTM C143-1966
Concrete, Ready Mixed-Specifications for (A 37.69-1967).....	ASTM C94-71
Sands for Concrete-Test for Organic Impurities on.....	ASTM C40-72

#### INTERIOR FINISHES

Gypsum and Gypsum Products, Chemical Analysis of- Standard Methods for.....	ASTM C471-72
Gypsum Board Products and Gypsum Partition Tile or Block, Physical Testing of-Standard Methods for..	ASTM C473-68
Gypsum Concrete-Specifications for.....	ASTM C317-70
Gypsum Formboard-Specifications for.....	ASTM C318-67
Gypsum Lath-Specifications for.....	ASTM C37-69
Gypsum Plasters-Specifications for.....	ASTM C28-68
Gypsum Plasters and Gypsum Concrete, Physical Testing of-Standard Methods for.....	ASTM C472-70
Gypsum Sheathing Board-Specifications for.....	ASTM C79-67

Gypsum Wallboard-Specifications for.....ASTM C36-70  
 Insulating Board, (Made from Vegetable fiber)  
 -Methods of Testing.....ASTM C209-66  
 -Specifications for.....ASTM C208-66  
 Lime.....(See Masonry)

MASONRY

Aggregate for Masonry Mortar-Specifications for.....ASTM C144-70  
 Brick, Concrete Building-Specifications for.....ASTM C55-71  
 Brick-Methods of Testing and Sampling.....ASTM C67-66  
 Cement, Masonry-Specifications for.....ASTM C91-71  
 Ceramic Tile (Veneers) .....(See Interior Finishes)  
 Chemical Analysis of Limestone, Quicklime and  
 Hydrated Lime.....ASTM C25-72  
 Concrete Masonry Units.....(See Concrete)  
 Glazed Units-Ceramic Glazed Structural Clay  
 Facing Tile, Facing Bricks and Solid Masonry  
 Units-Specifications for.....ASTM C126-71  
 Lime and Limestone Products-Methods of Sampling,  
 Inspection, Packing and Marking of.....ASTM C50-68  
 Lime, Hydrated and Quick-Methods of Physical  
 Testing of.....ASTM C110-71  
 Lime, Hydraulic Hydrated for Structural Purposes-  
 Specifications for.....ASTM C141-67  
 Mortars, Hydraulic Cement-Method of Test for  
 Compressive Strength of (Using 2 inch cube  
 Specimens)..... ASTM C109-70T  
 Mortars, Hydraulic Cement-Method of Test for  
 Tensile, Strength of.....ASTM C19--72  
 Stone, Natural Building-Methods of Test for  
 Absorption and Bulk Specific Gravity of.....ASTM C97-70  
 Stone, Natural Building-Method of Test for  
 Compressive Strength of.....ASTM C170-70  
 Stone, Natural Building-Methods of Test for  
 Modulus of Ruptures of.....ASTM C99-70

METALS

Cast Iron-Method of Testing Compression of.....ASTM A256-46  
 Metallic Materials-Methods of Tension Testing of.....ASTM E8-69

UNCLASSIFIED MISCELLANEOUS

Cement, Hydraulic-Methods of Sampling.....ASTM C183-71  
 Cement, Natural-Specifications for.....ASTM C10-70a  
 Cement, Portland-Specifications for.....ASTM C150-72  
 Clay Pipe, Testing .....ASTM C301-72  
 Plastics Under Load-Method of Test for Deforma-  
 tion of.....ASTM D621-64  
 Tile, Clay Drain-Specifications for.....ASTM C4-70

WOOD AND WOOD PRODUCTS

Evaluating the Properties of Wood-Base Fiber  
and Particle Panel Materials.....ASTM D1037-72  
Timber, Small Clear Specimens-Method of Testing.....ASTM D143-72  
Timbers in Structural Sizes-Methods of Static  
Tests of.....ASTM D198-67  
Veneer, Plywood and Other Glued Veneer Construction-  
Methods of Testing.....ASTM D805-72

APPENDIX E

STRUCTURAL ASSEMBLY TEST STANDARDS

(See also appendix D for standards for test of unit materials.)

Metal Fasteners in Wood, Testing of.....ASTM D1761-68  
Heavy Truss Assemblies, Testing.....ASTM E73-70  
Panels for Building Construction-Methods  
of Conducting Strength Test of.....ASTM E72-68

## APPENDIX F

### DURABILITY TEST STANDARDS

(See also appendices C, D and E for tests of individual materials or unit assemblies.)

#### CONCRETE AND CONCRETE AGGREGATE

Concrete, Aggregate-Method of Tests for  
Voids in. . . . .ASTM C30-70  
Concrete, Air Content of Freshly Mixed, by  
the Pressure Method-Method of Test for. . . . .ASTM C231-72  
Concrete, Weight per Cubic Foot, Yield and Air  
Content of-Method of Test for. . . . .ASTM C138-71T  
Organic Impurities in Sand for Concrete-  
Method of Test for. . . . .ASTM C40-72

#### MASONRY AND MASONRY PRODUCTS

Ceramic Glazed Structural Clay Facing Tile,  
Facing Brick and Solid Masonry Units-  
Specifications for (Autoclave Test). . . . .ASTM C126-71  
Freezing and Thawing Tests (See Specifications  
for Materials)  
-Bricks-Methods of Sampling and Testing. . . . .ASTM C67-66  
-Drain Tile-Specifications for. . . . .ASTM C4-70

#### PLASTICS

Water Absorption of Plastics-Methods of  
Test for . . . . .ASTM D570-72

#### ROOFING AND SIDING

Asphalt Roll Roofing, Cap Sheets, and Shingles-  
Methods of Testing. . . . .ASTM D228-69  
Bituminous Materials, Accelerated Test of  
Weathering-Recommended Practice for. . . . .ASTM D529-73  
Felted and Woven Fabrics Saturated with  
Bituminous Substance for Use in  
Waterproofing and Roofing-Methods of  
Sampling and Testing. . . . .ASTM D146-72

UNCLASSIFIED MISCELLANEOUS

Fibre Building Boards-Method of Accelerated Aging. . . . .	.ASTM D1037-72
Gypsum and Gypsum Products, Chemical Analysis of- Standard Methods for. . . . .	.ASTM C471-72
Gypsum Board Products and Gypsum Partition Tile or Block, Physical Testing of- Standard Methods of. . . . .	.ASTM C473-68
Gypsum Plasters and Gypsum Concrete, Physical Testing of-Standard Methods for. . . . .	.ASTM C472-70

## APPENDIX G

### FIRE TEST AND FLAME SPREAD TEST STANDARDS

#### COMBUSTIBLE OR NONCOMBUSTIBLE PROPERTIES

Fire Hazard Classification of Building Materials-Test Method for.....	ULI Standard Test Method Subject 723-1960
Fireretardant Treatments of Building Materials.....	NFiPA 703-1961
Flameresistant Textiles and Films, Standard Method of Tests for.....	NFiPA 701-1969
Noncombustibility of Elementary Materials-Method of Test for Determining.....	ASTM E136-65
Plastics-Standard Method of Test for Measuring the Density of Smoke from the Burning or Decomposition of.....	ASTM D2843-1970
Wood Treated-Method of Test for Combustible Properties of	
-by the Crib Test.....	ASTM E160-69
-by the Fire Tube Apparatus.....	ASTM E69-69

#### FIRERESISTANCE PROPERTIES

Building Construction and Materials-Method of Fire Test of.....	ASTM E119-71
Ceiling Construction.....	(See Building Construction)
Door Assemblies-Methods of Fire Tests of.....	ASTM E152-72
Plastics, Ignition Properties of-Test for.....	ASTM D1929-1968
Roof Coverings-Method of Fire Test of.....	ASTM E108-70
Window Assemblies-Standard Methods of Fire Tests of.....	ASTM E163-1965

#### FLAME SPREAD PROPERTIES

Flameresistance Tests-Acoustical Units, Prefabricated.....	Fed. Spec. SS-5-118A-67
Flameresistant Textiles and Films-Standard Methods of Fire Test for.....	NFiPA 701-1969
Surface Burning Characteristics of Building Materials-Method of Test for.....	ASTM E84-70
Textile Test, Method 5190-Burning Rate of Cloth; Thirty Degree Angle.....	U. S. Federal Test Method Standard 191-1968

#### FLASH POINT

Fuel Oils, by Pensky-Masters Closed Tester-Methods of Test for Flash Point.....	ASTM D93-72
Liquids other than Fuel Oil, by Tag Closed Tester-Method of Test for Flash Point (JT/NW D01-2400).....	ASTM D56-70
Flash and Fire Points by Cleveland Open Cup-Method of Test for.....	ASTM D92-72

APPENDIX H

FIRE PROTECTION STANDARDS

ALARM AND DETECTING SYSTEMS

- Alarms Systems, Public Fire Service Communications..NFIPA 73-1973
- Signaling Systems, Central Station Protective--
- For Watchman, Fire Alarm and Supervisory Service,
- Installation, Maintenance and Use of.....NFIPA 71-1972
- Signaling Systems--Installation, Maintenance and Use
- Local Protective.....NFIPA 72A-1972
- Auxiliary Protective.....NFIPA 72B-1972
- Remote Station Protective.....NFIPA 72C-1972
- Proprietary Protective.....NFIPA 72D-1972

PREVENTION OF SPREAD OF FIRE

- Air Conditioning and Ventilating Systems
- other than Residence Type.....NFIPA 90A-1973
- Residence Type.....NFIPA 90B-1973
- Aircraft Hangars.....NFIPA 409-1973
- Doors, Tin-Clad Fire.....ULI 10(a)-68
- Dust Explosion Prevention.....(See App. B)
- Fire Dampers.....ULI Standard 555-1970
- Fire Doors and Windows--Standard for.....NFIPA 80-1973
- Fire-resistance Ratings.....AIA-1968
- Hardware, Sliding, for Standard Horizontally Mounted
- Tin-Clad Fire Doors.....ULI 14(b)-1973
- Hardware, Swinging, for Standard Tin-Clad Fire
- Doors.....ULI 14(c)-1973
- Equipment, Materials Service for Conservation of
- Property Approval Guide 1973.....FMED-73

PROTECTION SYSTEMS

- Carbon Dioxide Extinguishing Systems.....NFIPA 12-1973
- Extinguishers, Portable Fire--Installation.....NFIPA 10-1973
- Extinguishers, Portable Fire, Maintenance and Use.NFIPA 10A-1973
- Foam Extinguishing Systems.....NFIPA 11-1973
- Foam-Water Sprinkler and Foam-Water Spray Systems..NFIPA 16-1968
- Hose Systems.....(See Standpipe and Hose Systems)
- Outside Protection (Yard Piping).....NFIPA 24-1973
- Private Fire Brigades--Organization, Training and
- Equipment of.....NFIPA 27-1967
- Pumps, Centrifugal Fire-Installation of.....NFIPA 20-1972
- Sprinkler Systems
- Installation of.....NFIPA 13-1973
- Care and Maintenance of.....NFIPA 13A-1971
- Standpipe and Hose Systems.....NFIPA 14-1973
- Valves Controlling Water Supplies for Fire Protection--
- Supervision of.....NFIPA 26-58
- Water Tanks for Private Fire Protection.....NFIPA 22-1971
- Water Spray Systems.....NFIPA 15-73

APPENDIX I

UNIT DESIGN DEAD LOADS FOR STRUCTURAL DESIGN PURPOSES

WALLS AND PARTITIONS (UNPLASTERED)

		Pounds per Square Foot
12 inch	common brick.....	120
12 "	pressed brick.....	130
12 "	sand-lime brick.....	105
12 "	hollow concrete block--Stone Aggregate.....	74
	Lightweight.....	55
10 "	hollow concrete block--Stone Aggregate.....	62
	Lightweight.....	46
8 "	hollow concrete block--Stone Aggregate.....	50
	Lightweight.....	36
6 "	hollow concrete block--Stone Aggregate.....	42
	Lightweight.....	36
4 "	hollow concrete block--Stone Aggregate.....	27
	Lightweight.....	20
12 "	solid concrete block--Stone Aggregate.....	108
	Lightweight.....	72
10 "	solid concrete block--Stone Aggregate.....	84
	Lightweight.....	62
8 "	solid concrete block--Stone Aggregate.....	67
	Lightweight.....	48
6 "	solid concrete block--Stone Aggregate.....	50
	Lightweight.....	37
4 "	solid concrete block--Stone Aggregate.....	45
	Lightweight.....	34
12 "	combination brick and clay tile.....	80
8 "	" " " " " ".....	60
12 "	combination brick and concrete block.....	90
8 "	" " " " " ".....	72
12 inch	load bearing clay tile.....	60
8 "	" " " " " ".....	40
6 "	" " " " " ".....	36
4 "	" " " " " ".....	24
10 "	non-load bearing clay tile.....	40
8 "	" " " " " ".....	36
6 "	" " " " " ".....	30
4 "	" " " " " ".....	20
3 "	" " " " " ".....	18
2 "	" " " " " ".....	11
8 "	non-load bearing hollow concrete block.....	40
6 "	" " " " " ".....	30
4 "	" " " " " ".....	20
T.C. 1½ inch	split terra cotta furring.....	8
2 inch	split terra cotta furring.....	10
3 "	" " " " " ".....	12
6 "	hollow gypsum block.....	24
5 "	" " " " " ".....	18
4 "	" " " " " ".....	15
3 "	" " " " " ".....	10



	Pounds per Square Foot
4 inch solid gypsum block.....	24
3 " " " " .....	18
2 " " " " .....	12
4 " glass block.....	18

	Pounds per Cubic Foot
Cast stone solid.....	144
Granite ashlar.....	168
Limestone ashlar.....	168
Marble ashlar.....	168
Sandstone ashlar.....	156
Rubble stone masonry.....	156
Terra cotta architectural (filled).....	120
Terra cotta architectutral (unfilled).....	72
Concrete, stone (plain).....	144
Concrete, stone (reinforced).....	150
Concrete, cinder.....	108
Fill, cinder.....	60
Earth (dry).....	96
Earth (damp).....	108
Earth (wet).....	120
Cork.....	15
Timber, Ash.....	40
Timber, Douglas Fir.....	36
Timber, Cypress.....	30
Timber, Hemlock.....	30
Timber, Oak.....	48
Southern Pine, Short Leaf.....	36
Southern Pine, Long Leaf.....	48
Redwood.....	28
Spruce.....	30

#### PLASTER WORK

	Pounds per Square Foot
Gypsum (one side).....	5
Cement (one side).....	10
Gypsum on wood lath.....	8
Gypsum on metal lath.....	8
Gypsum on plaster board or fiber board.....	8
Cement on wood lath.....	10
Cement on metal lath.....	10

#### SUSPENDED CEILINGS

	Pounds per Square Foot
Cement on wood lath.....	12
Cement on metal lath.....	15
Gypsum on wood or metal lath.....	10

#### LATH AND PLASTER PARTITIONS

	Pounds per Square Foot
2 inch solid cement on metal lath.....	25
2 " solid gypsum on metal lath.....	18
2 " " " on gypsum lath.....	18
2 " metal studs gypsum & metal lath both sides.....	18
3 " " " " " " " " " " .....	19

Pounds per Square Foot

4 inch metal studs gypsum & metal lath both sides.....	20
6 inch wood studs plaster and wool lath, both sides.....	18
6 " " " " " metal lath, both sides.....	18
6 " " " " " plaster boards, both sides.....	18
6 " " " unplastered gypsum board, both sides (dry wall).....	10

FLOOR AND ROOF CONSTRUCTION

Pounds per Square Foot

Cinder fill per inch depth.....	5
Cinder concrete per inch depth.....	9
Stone concrete per inch depth.....	12
Floor finish tile per inch depth.....	12
Cement finish per inch depth.....	12
Gypsum slabs per inch depth.....	4
Precast concrete plank per inch depth (as determined by test)	
Hardwood flooring per inch depth.....	4
Underflooring per inch depth.....	3
Linoleum.....	2
Asphalt tile.....	2

ROOFS AND ROOFING

Pounds per square Foot

Metal Skylights.....	10
3-ply roofing.....	4
4 " " .....	5
5 " " .....	6
Wood sheathing (1").....	3
Plywood sheathing (5/16").....	1
Corrugated iron roofing.....	3
Formed steel decking.....	3
Sheet lead.....	3
Slate tile roofing.....	10
Cement tile.....	16
Spanish tile.....	20
Shingles, asbestos.....	6
Shingles, asphalt.....	6
Shingles, wood.....	6

## APPENDIX J

### UNIT WORKING STRESSES FOR ORDINARY MATERIALS

Unless otherwise specified herein, the allowable working stresses for ordinary materials, as defined in sections 701 and 722, shall be reduced ten (10) percent below the recommended values of the accepted engineering standards listed in the reference standards of article 8. When the structural material is identified in regard to manufacture and grade and the identification is accompanied by satisfactory mill tests or the strength and stress grade of the materials are otherwise confirmed to the satisfaction of the building official, the allowable working stresses may be increased to comply with the accepted engineering standards.

#### J-1 MASONRY STRESSES

J-1-A MORTAR FOR UNIT MASONRY: Mortar for unit masonry shall comply with either the proportion specifications as set out in section 816.2, or shall meet the property specifications of the accepted engineering standard listed in the reference standards of article 8. Unless laboratory data are presented to show that the mortar meets the requirements of the property specifications, the proportion specifications shall govern.

J-1-B COMPRESSIVE STRESSES: Except as permitted in other sections of the Basic Code, the compressive stresses in masonry shall not exceed the values as shown in table J-1.

J-1-C SHEAR AND TENSILE STRESSES: Except as permitted in other sections of the Basic Code, the allowable shear or tensile stresses in masonry shall not exceed the values permitted in the accepted engineering practice standards listed in the reference standards of article 8.

TABLE J-1 ALLOWABLE COMPRESSIVE STRESSES GROSS CROSS-SECTIONAL AREA  
(EXCEPT AS NOTED)

TYPE OF MASONRY AND GRADE OF MASONRY UNIT (PSI GROSS AREA)	TYPE OF MORTAR			
	M	S	N	O
	psi	psi	psi	psi
Solid masonry of brick and other solid units of clay or shale; sand- lime or concrete:				
8000 plus psi	400	350	300	200
from 4500 to 8000 psi	250	225	200	150
from 2500 to 4500 psi	175	160	140	100
from 1500 to 2500 psi	125	115	100	75
Grouted masonry of solid masonry units:				
from 4500 to 8000 psi	350	275	200	-
from 2500 to 4500 psi	275	215	155	-
from 1500 to 2500 psi	225	175	125	-
Solid masonry of solid concrete masonry units:				
1800 plus psi	175	160	140	100
from 1200 to 1800 psi	125	115	100	75
Masonry of hollow units	85	75	70	-
Hollow walls (cavity or masonry bonded) <sup>1</sup>				
Solid masonry units				
2500 plus psi	140	130	110	-
from 1500 to 2500 psi	100	90	80	-
Hollow masonry units	70	60	55	-
Stone ashlar masonry				
Granite	800	720	640	500
Limestone or marble	500	450	400	325
Sandstone or cast stone	400	360	320	250
Rubble stone, coursed, rough or random	140	120	100	80

Note 1: On gross cross-sectional area of wall minus area of cavity between wythes. The allowable compressive stresses for cavity walls are based upon the assumption that the floor loads bear upon but one (1) of the two (2) wythes. Where hollow walls are loaded concentrically, the allowable stresses may be increased by twenty-five (25) percent.

#### J-2 REINFORCED CONCRETE STRESSES

The allowable working stresses for ordinary materials shall be based on the following proportions (see table J-2) by dry volumetric measurement and maximum water content per sack of cement in accordance with the standard requirements for reinforced concrete specified in the reference standards of article 8 subject to the ten (10) percent reduction prescribed for ordinary materials.

#### J-3 REINFORCED GYPSUM CONCRETE STRESSES

When ordinary materials are used, the allowable working stresses shall be based on the following proportions, measured dry by weight with sufficient water to make a plastic mix that will fill the forms: one hundred (100) percent neat calcined gypsum; ninety-seven (97) percent gypsum and three (3) percent wood chips, shavings or fibers; and eighty-seven and five tenths (87.5) percent gypsum and twelve and five tenths (12.5) percent wood chips, shavings or fibers; with ultimate compressive strengths of eighteen hundred (1,800), one thousand (1000) and five hundred (500) pounds per square inch, respectively.

The working stresses shall not exceed the values prescribed in the standard for reinforced gypsum concrete listed in the reference standards of article 8 subject to the ten (10) percent reduction prescribed for ordinary materials.

#### J-4 STEEL REINFORCEMENT STRESSES

The allowable working stresses for reinforcement specified in the standard requirements for reinforced concrete listed in the reference standards of article 8 shall be used in all reinforced construction, including reinforced concrete, reinforced gypsum concrete and all forms of reinforced masonry subject to the ten (10) percent reduction specified for ordinary, unidentified materials.

#### J-5 STRUCTURAL STEEL STRESSES

When ordinary materials which are not identified as to manufacture and grade are used, the allowable working stresses specified in the standard for design, fabrication and erection of structural steel listed in the reference standards of article 8 shall be reduced ten (10) percent.

TABLES J-2 MAXIMUM WATER-CEMENT RATIOS AND MINIMUM CEMENT CONTENTS

SPECIFIED COMPRESSIVE STRENGTH <sup>1</sup> (PSI)	MINIMUM SACKS OF CEMENT PER CUBIC YARD OF CONCRETE	MAXIMUM PERMISSIBLE WATER-CEMENT RATIOS			
		NON-AIR-ENTRAINED CONCRETE		AIR-ENTRAINED CONCRETE	
		Absolute ratio by weight	U.S. Gal. per 94 lb. bag of cement	Absolute ratio by weight	U.S. Gal. per 94 lb. bag of cement
2500	5	0.65	7.3	0.54	6.1
3000	5½	0.58	6.6	0.46	5.2
3500	6	0.51	5.8	0.40	4.5

Note 1: 28-day strengths for cements meeting strength limits of ASTM C150, type I, IA, II OR IIA and 7-day strengths for type III and IIIA.

J-6 CAST IRON STRESSES

	Maximum stress in pounds per square inch
Tension .....	3,000
Extreme Tension (Fiber Stress in Bending) .....	3,000
Extreme Compression (Fiber Stress in Bending) ..	16,000
Shear .....	3,000
Column Compression .....	9,000 minus $40 \frac{1}{r}$

Ratio  $\frac{1}{r}$  not to exceed seventy (70)

J-7 COLD FORMED STEEL CONSTRUCTION STRESSES

When ordinary materials which are not identified as to manufacture and grade are used, the allowable working stresses specified in the standard for the Design, Fabrication and Erection of Cold-Formed Structural Steel listed in the reference standards of article 8, shall be reduced ten (10) percent.

J-8 LUMBER STRESSES

When the grade of lumber is not identified as provided in section 722 for controlled materials, the maximum allowable working stresses for the species of lumber used shall be determined in accordance with the principles for stress grade lumber as set forth in the National Design Specification for Stress-Grade Lumber and Its Fastenings, listed in the reference standards of article 8.

APPENDIX K

SPECIALIZED CODES

Executive Office of Public Safety  
Department of Public Safety  
BOARD OF FIRE PREVENTION REGULATIONS

- FPR-2 Rules and Regulations Governing Dry-Cleaning and Dry-Dyeing and the Keeping, Storage and Use of Cleaning and Dyeing Fluid in Connection Therewith
- FPR-3 Rules and Regulations Governing the Construction, Installation and Operation of Oil Burning Equipment and the Keeping, Storage and Use of Fuel Oil or Other Inflammable Liquid Products used in Connection Therewith
- FPR-4 Rules and Regulations Governing the Construction and Maintenance of Buildings or Other Structures Used as Garages, and the Related Storage, Keeping and Use of Gasoline.
- FPR-5 Rules and Regulations Governing the Construction, Location, Installation and Operation of Liquefied Petroleum Gas Systems, Gas Piping and Appliance Installations in Buildings
- FPR-6 Rules and Regulations Governing the Manufacturing and Handling of Plastics
- FPR-8 Rules and Regulations Governing Construction, Location, Use and Maintenance of Tanks and Containers
- FPR-9 Rules and Regulations for the Purpose of remedying any Condition Found to Exist in or about any Building or Other Premises or on any Ship or Vessel in Respect to Fires, the Prevention of Fire and Fire Hazards
- FPR-11 Massachusetts State Electrical Code



FPR-13 Rules and Regulations Governing the Keeping, Storage, Manufacture or Sale in Limited Quantities of Flammable Fluids, Solids or Gases

BOARD OF BOILER RULES

- BLR-1 Part I of Steam Boiler Rules
- BLR-1-A Part I-A of Steam Boiler Rules, Atomic Energy Installations
- BLR-2 Part II of Steam Boiler Rules, Power and Miniature Class
- BLR-3 Low Pressure Steam-Heating Boilers
- BLR-4 Part IV - Steam Boiler Rules
- BLR-5 Part I - Air Tank Regulations, Installation and Inspection
- BLR-6 Part II - Air Tank Regulations, Installation and Inspection
- BLR-7 Refrigeration and Air Conditioning
- BLR-8 Material Specifications
- BLR-9 Welding Specifications
- BLR-11 Fiberglass-Reinforced Plastic Pressure Vessels

BOARD OF ELEVATOR REGULATIONS

- ELV-1 Elevator and Escalator Regulations
- ELV-2 Elevator, Dumbwaiter, Escalator, and Moving Walk Regulations

BOARD TO FACILITATE THE USE OF PUBLIC BUILDINGS BY THE PHYSICALLY HANDICAPPED

- PHR-1 Rules and Regulations of the Board to Facilitate the Use of Public Buildings by the Physically Handicapped

Executive Office of Consumer Affairs  
Department of Public Utilities  
GAS REGULATORY BOARD

Massachusetts Code for Installation of Gas  
Appliances and Gas Piping

Division of Registration  
BOARD OF STATE EXAMINERS OF PLUMBERS

Massachusetts State Plumbing Code

Executive Office of Human Services  
Department of Public Health  
DIVISION OF ENVIRONMENTAL HEALTH

The State Sanitary Code

- ARTICLE I General Application and Administration
- ARTICLE II Minimum Standards of Fitness for Human Habitation
- ARTICLE III Housing and Sanitation Standards for Farm Labor Camps
- ARTICLE IV Sanitation Standards for Recreational Camps for Children
- ARTICLE VI Minimum Standards for Swimming Pools
- ARTICLE VIII Minimum Standards for Developed Family Type Camp Grounds
- ARTICLE X Minimum Sanitation Standards for Food Service Establishments

DIVISION OF HEALTH CARE AND STANDARDS

Designer's Guide (Bureau of Planning and Construction)

Licensure Rules and Regulations for Hospitals in Massachusetts, 1971

Intensive Care Unit Amendment, May 26, 1972

Rules and Regulations for the Licensure of Dispensaries and Clinics, 1964

Rules and Regulations for General Standards of Construction-Long Term Care Facilities in Massachusetts, September 29, 1972

Executive Office of Manpower Affairs  
Department of Labor and Industries  
DIVISION OF INDUSTRIAL SAFETY

- |                            |   |
|----------------------------|---|
| Industrial Bulletin No. 12 | Rules and Regulations<br>for Prevention of<br>Accidents on Construction<br>Operations     |
| Industrial Bulletin No. 13 | Revised Rules and Regulations<br>and Recommendations Pertaining<br>to Structural Painting |
| Industrial Bulletin No. 18 | Lighting Code for Factories,<br>Workshops, Manufacturing,<br>Mercantile Establishments    |

Executive Office of Environmental Affairs  
Outdoor Advertising Division  
OUTDOOR ADVERTISING BOARD

Rules and Regulations for the Control and Restriction  
of Billboards, Signs, and other Advertising Devices,  
October 1, 1973

APPENDIX L

LIST OF AGENCIES AND DEPARTMENTS ON THE TECHNICAL CODE COUNCIL

Board to Facilitate the Use of Public Buildings by the  
Physically Handicapped  
Department of Public Safety  
1010 Commonwealth Avenue  
Boston, MA 02215  
Mr. Robert Lynch, Chairman . . . . . (617) 566-4500

Board of Boiler Rules  
Department of Public Safety  
1010 Commonwealth Avenue  
Boston, MA 02215  
Mr. John K. Olsen, Supervising District  
Engineering Inspector. . . . . (617) 566-4500

Board of Elevator Regulations  
Department of Public Safety  
1010 Commonwealth Avenue  
Boston, MA 02215  
Mr. Adam Strachan, Chairman. . . . . (617) 566-4500

Board of Fire Prevention Regulations  
Department of Public Safety  
1010 Commonwealth Avenue  
Boston, MA 02215  
Mr. Samuel Gronich, Chairman . . . . . (617) 566-4500

Board of Schoolhouse Structural Standards  
Department of Public Safety  
1010 Commonwealth Avenue  
Boston, MA 02215  
Mr. Francis S. Harvey, Acting Chairman . . . (617) 566-4500

Board of State Examiners of Electricians  
Division of Registration  
100 Cambridge Street  
Boston, MA 02202  
Mr. John F. Cullen, Executive Secretary. . . (617) 727-3050

Board of State Examiners of Plumbers  
Division of Registration  
100 Cambridge Street  
Boston, MA 02202  
Mr. Irving J. Risi, Executive Secretary. . . (617) 727-3046

Bureau of Community Sanitation  
Department of Public Health  
600 Washington Street  
Boston, MA 02100

Mr. Harold Rose, Senior Sanitary Engineer. . (617) 727-2656

Bureau of Engineering and Construction  
Department of Public Health  
80 Boylston Street  
Boston, MA 02116

Mr. Richard Knapp, Director. . . . . (617) 727-8985

Division of Environmental Health  
Department of Public Health  
600 Washington Street  
Boston, MA 02100

Mr. John C. Collins, Director. . . . . (617) 727-2690

Division of Health Care Standards  
Department of Public Health  
80 Boylston Street  
Boston, MA 02116

Dr. Harvey Remmer, Acting Director . . . . . (617) 727-7836

Division of Industrial Safety  
Department of Labor and Industries  
100 Cambridge Street  
Boston, MA 02202

Mr. Everett L. Grady, Director . . . . . (617) 727-3567

Division of Inspection  
Department of Public Safety  
1010 Commonwealth Avenue  
Boston, MA 02215

Mr. John R. Loynd, Acting Chief of  
Inspections. . . . . (617) 727-5152

Division of Outdoor Advertising  
Executive Office of Environmental Affairs  
80 Boylston Street  
Boston, MA 02116

Mr. Peter B. Bronson, Acting  
Executive Director . . . . . (617) 426-0708

Engineering and Maintenance  
Department of Mental Health  
190 Portland Street  
Boston, MA 02114

Mr. James Kerr, Director . . . . . (617) 727-5647

Gas Regulatory Board  
Department of Public Utilities  
100 Cambridge Street  
Boston, MA 02202  
Mr. George Coogan, Chairman. . . . .(617) 727-3539

Mobile Home Commission  
1153 Boston Road  
Springfield, MA 01119  
Mr. Frank C. Gotta, Chairman . . . . .(413) 783-6114

Office of the State Fire Marshal  
Department of Public Safety  
1010 Commonwealth Avenue  
Boston, MA 02215  
Mr. Joseph G. Sneider, State Fire Marshal . .(617) 566-4500

State Building Code Commission  
Department of Community Affairs  
141 Milk Street  
Boston, MA 02109  
Mr. Charles J. Dinezio,  
Executive Secretary. . . . .(617) 727-6916