

AREAS AND MEASUREMENTS

To find the circumference of a circle, multiply the diameter by 3.1416.

To find the diameter, multiply circumference by 0.3183 or divide circumference by 3.1416.

To find the radius, multiply circumference by 0.15915.

To find the side of an inscribed square, multiply the diameter by 0.07071 or multiply the circumference by 0.2551.

To find the side of an equal square, multiply the diameter by 0.8863 or multiply the circumference by 0.2821.

Square: A side multiplied by 1.1142 equals the diameter of its circumscribing circle.

A side multiplied by 4.443 equals the circumference of its circumscribing circle.

A side multiplied by 1.126 equals the diameter of an equal circle.

A side multiplied by 3.547 equals circumference of an equal circle.

To find the area of a circle, multiply the circumference by one-quarter of the diameter or multiply the square of the diameter by 0.7854 or multiply the square of the circumference by 0.07958 or multiply the square of one-half of the diameter by 3.1416.

To find the surface of a sphere or globe, multiply the diameter by the circumference or multiply the square of the diameter by 3.1416 or multiply four times the square of the radius by 3.1416.

To find tank capacities, diameter square x .0034 = gallons per inch of height – Base 42 gallons per barrel.

To find area of a triangle – multiply base by $\frac{1}{2}$ perpendicular height.

To find area of an ellipse – product of both diameters x .7854.

To find area of a parallelogram – base x altitude.

To find cu. inches in a ball – multiply cube of diameter by .5236.

To find cubic contents of a cone – multiply area of base by one-third the altitude.

Area of rectangle equals length multiplied by width.

Surface of frustum of cone or pyramid equals sum of circumference of both ends x $\frac{1}{2}$ slant height plus area both ends.

Contents of frustum of cone or pyramid: multiply area of two ends and get square root – add the two areas and time $\frac{1}{3}$ altitude.

CONVERSION TABLES

To convert bushels to ton, multiply number of bushels by 60 and divide the product by 2000 (average maximum weight of commodities 60 pounds per bushel.)

To convert gallons to bushes, divide gallons by 9.35. Answer in bushes.

To convert cubic measure into bushels, multiply by 0.8035.

To find capacity of cylindrical tanks standing on end: To find the capacity in cubic feet of a round tank or cistern, multiply the square of the average diameter by the depth and multiply the product by .785.

APPENDIX**Architectural Terms**

Apartment hotel	a building designed for non-transient residential use, divided into dwelling units similar to an apartment house, but having such accommodations as room furnishings, lounges, public dining room, maid service, etc.
Apartment house	a multi-family residence containing three or more non-transient residential living units and generally providing them with a number of common facilities and services.
Attic	An unfinished or semi-finished portion of a building lying between the highest finished story and the roof and wholly within the roof framing.
Basement	a building story which is wholly or partly below the grade level.
Bay	(1) a horizontal area division of a building usually defined as the space between columns or division walls. (2) an internal recess formed by causing a wall to project beyond its general line.
Bay window	a window, or group of continuous windows, projecting from the main wall of a building.
Beam	a long structural load-bearing member which is placed horizontally or nearly so and which is supported at both ends or, infrequently, at intervals along its length.
Beam, spandrel	a wall beam supporting the wall, above, as well as the floor.
Building	any structure partially or wholly above ground which is designed to afford shelter to persons, animals, or goods. See also <i>construction</i> .
Building, fireproof	a building in which all parts carrying loads or resisting stresses and all exterior and interior walls, floors, and staircases are made of incombustible materials, and in which all metallic structural members are encased in materials which remain rigid at the highest probable temperature in case its contents are burned, or which provide ample insulation from such a temperature.
Building, loft	a building having three or more stories with few or no interior bearing walls and designed for storage, wholesaling, or light industrial purposes.
Building, single-purpose	a building designed for a specific purpose, which cannot be used for another purpose without substantial alterations; e.g., a theater or church.
Bungalow	a one-story dwelling unit which is somewhat more pretentious than a cottage.

Column	a structurally isolated vertical member which is at least 8 to 10 times as long as its least lateral dimension and which is designed to carry loads. Compare <i>pier</i> .
Conduit	a tube, pipe, or small artificial tunnel used to enclose wires or pipes or to convey water or other fluids.
Construction, brick	a type of construction in which the exterior walls are bearing walls (q.v.) made of solid brick or brick and tile masonry.
Construction, brick veneer	a type of construction in which the exterior walls are one-layer brick curtain walls backed by a wood frame.
Construction, fireproof	<i>see fireproof building.</i>
Construction, mill	a type of construction in which the exterior walls are substantial masonry bearing walls, in which the structural members are of heavy timber, and which is further characterized by an open design and by other safeguards against fire hazards. Sometimes called "slow-burning construction."
Construction, reinforced Concrete	a type of construction in which the principal structural members, such as the floors, columns, beams, etc., are made of concrete poured around isolated steel bars or steel meshwork in such manner that the two materials act together in resisting forces.
Construction, steel frame	a type of construction in which there is a framework of steel structural members for the support of all loads and the resistance of all stresses.
Construction, wood frame	a type of construction in which there is a framework of wooden structural members for the support of all loads and the resistance of all stresses. Loosely called "frame construction."
Coping	a special capping at the top of a wall, serving principally as a watershed.
Cornice	a projecting element at the top of a wall, serving principally as a decoration or as part of the coping (q.v.).
Cottage	a one story to two story dwelling unit of small size and humble character.
Course	a uniform horizontal layer of brick, stone, terra cotta, shingles, or some other structural material extending continuously around a building or along a wall.
Court	an open space bordered on two or more sides by the walls of a single building, or of two or more buildings, and by a lot line or a yard on any side not so bordered.
Dormer	(1) a relatively small structure projecting from a sloping roof. (2) a window set upright in the face of such a structure.
Dwelling	any building or portion thereof designed or occupied in whole or in part as a place of residence.

Dwelling, attached	a multi-family dwelling in which the dwelling units are separated vertically by means of common or party walls. See <i>terrace</i> .
Dwelling, double	a two-family dwelling in which the dwelling units are separated vertically, by means of a common or party wall. Synonymous with "semi-detached dwelling."
Dwelling, duplex	a two-family dwelling in which the two dwelling units are separated horizontally with a private street entrance for each; i.e., a two-family flat.
Dwelling, Multi-family	a building designed as a place of residence for more than two families or households; e.g., an apartment house or tenement.
Dwelling, row	any one of a series of similar single family, two family, or multi-family dwellings having one or more contiguous common or party walls. Compare <i>terrace</i> ; <i>dwelling, double</i> .
Dwelling unit	any room or group of rooms designed as the living quarters of one family or household, equipped with cooking and toilet facilities, and having an independent entrance from a public hall or from the outside.
Eaves	the portion of a sloping roof which projects beyond the outside walls of a building.
Elevation	a drawing which represents a projection of any one of the vertical sides or vertical cross-sections of a building or of any other object. Compare <i>plan</i> .
Façade	the face of a building.
Firewall	a wall of fire-resisting material erected between two parts of a building to prevent the spread of fire from one part to the other.
Flashing	small metal strips used to prevent leaking of roofs around chimneys, dormers, hips, and valleys.
Flat	(1) any one floor of a building two or more stories high, each floor of which constitutes a single dwelling unit and has a private street entrance. (2) the building containing two or more such floors. Compare <i>dwelling, duplex</i> .
Footing	a spreading base to a wall, column, or other supporting member, which serves to widen the ground area to which structural loads are transmitted.
Foundation	the structural members below grade level, or below the first tier of beams above grade level, which transmit the load of a superstructure to the ground.
Gable	(1) the triangular portion of a wall between the slopes of a double-sloping (i.e., gable) roof. (2) the whole of the wall containing such a triangular portion. (3) a portion of a building extending from the remainder of the building and covered with a gable roof.

Girder	a large or principal beam (q.v.) used to support concentrated loads at isolated points along its length. (Girders usually support the beams and structure above).
Header	(1) a structural member which is laid perpendicularly to a parallel series of similar members and against which the latter members abut. (2) a brick or other piece of masonry which is laid in a wall in such manner that its longest dimension extends along the thickness of the wall. Contrast <i>stretcher</i> .
Hip	(1) a sloping line along which two roof surfaces meet to form an external angle of more than 180 degrees. (2) a hip rafter (q.v.) Compare <i>ridge</i> ; <i>valley</i> .
Hotel	a building designed for transient or semi-transient residential use, divided into furnished single rooms and suites, and having such accommodations as lounges, public dining rooms and maid service, etc
Hotel, apartment	see <i>apartment hotel</i> .
Joist	one of a series of small parallel beams laid on edge and used to support floor and ceiling loads, and usually supported in turn by larger beams and girders.
Lintel	a beam over a wall opening, such as a door or windows, designed to carry the load of the wall over such opening.
Loft	a non-partitioned or relatively open upper story of a building, designed for storage, Wholesaling, or light manufacturing. See also <i>loft building</i> .
Louver (or louvre)	a ventilator containing slats which are placed lengthwise across the ventilator opening, each slat being slanted in such manner as to overlap the next lower slat and to permit ventilation but exclude rain.
Marquee	a flat roof-like structure which shelters a doorway, which has no floor beneath it, and which is usually supported wholly from the walls or the building.
Mezzanine	a low story formed by placing a floor between what would ordinarily be the floor and ceiling of a high story, <i>Note</i> : the mezzanine floor frequently has a smaller area than other floors and, if present at all, is usually between the first and second stories.
Millwork	all of the wooden portions of a building, whether frame construction or otherwise, which are customarily purchased in finished form from a planing mill, such as doors, windows, trim, balusters, etc.
Overhang	a finished portion of a building having full story height which extends beyond the foundation wall line if part of the ground story, or beyond the exterior walls of the ground story if part of any higher story.
Overhead structure	similar to overhang above ground story, such as O.H. bridge or passage, O.H. walk, O.H. Addition.

Partition	see <i>wall, partition</i> .
Pier	(1) a thick, solid mass of masonry which is fully or partially isolated from a structural standpoint and which is designed to transmit vertical loads to the earth. (2) a structure projecting from land into water for use in loading and unloading vessels. Compare column.
Pilaster	a flat-faced pillar projecting somewhat from, but engaged in, the wall of a building and used for decorative purposes or to help support truss and girder loads or both.
Pile	a heavy timber, metallic, or masonry pillar forced into the earth to form a foundation member.
Pitch	the slope of any structural member, such as a roof or rafter, usually expressed as a simple fraction representing the rise per lateral foot.
Plan	a drawing representing a projection of any one of the floors or horizontal cross-sections of a building or of the horizontal plane of any other object or area. Compare elevation.
Purlin	a beam running along the underside of a sloping roof surface and at right angles to the rafters, used to support the common rafters, and usually supported in turn by larger structural members, such as trusses or girders (usually run along length of building).
Rafter	a structural member placed, as a rule, in a sloping position and used as the supporting element for the structural material forming the plane of the roof. See also purlin.
Rafter, hip	a rafter placed in an inclined position to support the edges of two sloping roof surfaces which meet to form an external angle of more than 180 degrees.
Rafter, valley	a rafter placed in an inclined position to support the edges of two sloping roof surfaces which meet to form an external angle of less than 180 degrees.
Ramp	an inclined walk or passage connecting two different floor levels and used in lieu of steps.
Residence	see <i>dwelling</i> .
Ridge	a horizontal line along which the upper edges of two roof surfaces meet to form an external angle of more than 180 degrees. Compare <i>hip; valley</i> .

Rise	(1) in general, any vertical distance. (2) specifically, the rise of a roof being the distance between the top of an exterior wall and the peak of the roof; the rise of a stair being the distance from tread to tread.
Roof	the top portion of a structure. Types of roofs include double pitch, flat, gable, gambrel, hip, lean-to, single pitch.
Roof, curb (or curbed)	a roof with a ridge at the center and a double slope on each if its two sides.
Roof, flat	a roof which is flat or sloped only enough to provide proper drainage.
Roof, gable	a double-sloped roof having a cross section similar in general to the shape of the inverted letter "V".
Roof, gambrel	a ridged roof with two slopes on each side, the lower having a steeper pitch.
Roof, hip (or hipped)	(1) in general, any roof having one or more hips (q.v.) (2) usually, a roof with four sloping sides meeting along four hips or along four hips and a ridge. Compare <i>roof, pyramid</i> .
Roof, lean-to	(1) a roof having a single sloping side which is supported at the upper edge by the wall of an attached building or of a larger and higher portion of the same building (preferred). (2) any roof with a single slope. Compare <i>roof, flat</i> .
Roof, mansard	a special type of curb roof (q.v.) in which the pitch of the upper part of each of the four equally sloping sides is small or negligible and that of the lower part is very great; a series of dormers projects from the lower part.
Roof, monitor	a type of gable roof commonly found on industrial buildings - having a small raised portion along the ridge, with openings for the admission of light and air.
Roof, pyramid	a hip roof having four sloping triangular sides, usually of equal pitch, meeting together at the peak.
Roof, ridged	a roof having one or more ridges (q.v.).
Roof, saw tooth	a roof with a series of parallel sloping surfaces interspersed between a series of vertical surfaces which rise from the lower edges of such sloping surfaces and which contain windows for the admission of light and air.
Roof, single pitch	any roof with a single slope, other than a lean-to roof.
Sash	the wooden or metal framework in which the glass of a door or window is set.
Sheathing	the covering, usually of rough lumber, placed immediately over studding or rafters.
Sill	(1) the lower horizontal part of a door-case (the threshold) or of

	a window. (2) the lowest horizontal structural member of a frame building, upon which the superstructure is supported.
Sleeper	a structural member laid horizontally on the ground or upon a masonry base as a support to a floor or other superstructures.
Specifications	a detailed description of the dimensions, materials, quantities, structural procedures, etc. applicable to a projected or completed piece of construction.
Story	that portion of a building enclosed by a floor, a ceiling, and the exterior walls.
Story, ground	the first story lying wholly above the ground level. Synonymous with "first story."
Story, half (or one-half)	(1) for buildings with a mansard or gambrel roof, a finished portion of a building which lies above the wall plate or cornice and which has a usable floor area substantially less than that of the next lower story. (2) for all other buildings, a finished portion of a building which is above one or more full stories, which is wholly or partly within the roof frame and which has one or more exterior walls substantially lower than the full height of the story.
Story, one	a building having no finished story above the ground story.
Stretcher	a brick or other piece of masonry which is laid lengthwise in a wall. contrast header.
Strut	any structural member, which holds apart two or more other members by counteracting a pressure, which tends to bring them together. Contrast tie.
Stud	one of a series of small slender structural members placed vertically and used as the supporting element of exterior or interior walls. (Plural: studs or studding)
Sub floor	the flooring laid directly on top of the floor joists, but beneath the finished floor.
Tenement	a building, usually of obsolete nature, designed primarily for non-transient residential use and divided into three or more dwelling units having common stairs, halls, and street entrances, and sometimes-common bath and toilet rooms. Compare <i>apartment house; flat; terrace</i> .
Terrace	(1) an unroofed level area covered with grass or masonry or both raised above the surrounding ground level, and having a vertical or sloping front. (2) a multi-family dwelling in which the dwelling units are separated vertically by means of common or party walls. Compare <i>dwelling, row; dwelling, double</i> .
Terra cotta	a hard-baked ceramic clay molded into decorative tiles, bricks, etc., and used particularly for facing and trim on buildings.
Tie	any structural member, which binds together two or more members by counteracting a stress which tends to draw them apart. Contrast <i>strut</i> .

Trim	(1) the wooden portions of a plastered room, such as the doors, windows, wainscoting, and molding, or the corresponding portions of a room finished otherwise than with plaster. (2) the contrasting elements on the exterior of a building which serve no structural purpose, but are intended to enhance its appearance, e.g., the cornice. (3) occasionally, the hardware of a house, such as locks, hinges, doorknobs, etc.
Truss	a combination of structural pieces fastened together into a rigid open member which is supported at both ends and upon which loads are superimposed. Compare <i>girder</i> .
Valley	a sloping line along which two roof surfaces meet to form an external angle of less than 180 degrees. Compare <i>hip</i> ; <i>ridge</i> .
Veneer	a thin ornamental or protective facing which does not add appreciably to the strength of the body to which it is attached.
Wainscot (or wainscoting)	(1) a wooden facing on the lower portion of a contrasting interior wall. (2) by extension, a facing of marble tile, or the like, on the lower portion of interior walls.
Wall	a vertical structure serving to enclose, support, divide; such as one of the vertical enclosing sides of a building or room.
Wall, bearing	a wall designed primarily to withstand vertical pressure in addition to its own weight.
Wall, common	a wall owned by one or two parties and jointly used by both, one or both of whom is entitled to such use under the provisions of ownership.
Wall, curtain	a non-bearing wall which is supported by columns, beams, or other structural members, and whose primary function is to enclose space.
Wall, fire	<i>see firewall</i>
Wall, partition	an interior bearing or non-bearing wall which separates portions of a story. Synonymous <i>with partition</i> .
Wall, party	a wall jointly used by two parties under easement agreement and erected at or upon a line separating two parcels of land held under different ownership.
Wall, retaining	a wall designed primarily to withstand lateral pressures of earth or other filling or backing deposited behind it after construction.
Window, bay	<i>see bay window</i> .
Window, dormer	<i>see dormer</i> .

Wing a subordinate part of a building extending from the main part, or any one of two or more substantially co-ordinate parts of a building which extend out from one or more common junctions.

DATA PROCESSING TERMS

BAUD unit of signaling speed equal to the number of discrete conditions or signal events per second.

Binary a characteristic or property involving a selection, choice, or condition in which there are two possibilities, such as the number representation with a radix of two.

Bits the smallest unit of information in the binary number system. An abbreviation of binary digits. Normally, a bit refers to one "on", while a no bit means zero "off".

Block a group of machine words considered or transported as a unit. In flowcharts, each block represents a logical unit of programming.

Bytes a sequence of adjacent binary digits operated upon as a unit; a unit of computer storage capacity equal to eight binary bits.

Calculator a keyboard machine for the automatic performance of arithmetic operations.

CAMA Computer-Assisted Mass Appraisal - Utilizing data processing to compare parcels, calculate values, and maintain property characteristics to increase efficiency and accuracy in the appraisal process.

Columns binary pertaining to the binary representation of data on punched cards in which adjacent positions in a column correspond to adjacent bits of data; each column in a 12-row card may be used to represent 12 consecutive bits of 36-bit word.

Computer a computational device distinguished by its high speed, programmable operation, and large memory.

Computer program a series of instructions, in a form acceptable to the computer, prepared so as to achieve a certain result.

CPU central Processing Unit - The heart of the computing system, which contains the arithmetic, logical and control circuits necessary for the interpretation, execution of a program and controls the functioning of the entire system.

CRT see *video display terminal*.

Data base a minimally redundant stored collection of data. A collection of data maintained by a computer.

Data base Management	A combination of hardware and software that controls and processes all requests for data in data bases.
Data element	the smallest unit of data stored on some medium to which a reference or none may be assigned.
Data entry	the process of placing information into machine-readable form.
Data path	the input-processing-output flow followed by data (often repeatedly) during normal computer operations.
Data processing	performing operations on machine-readable data, either with or without the use of a computer.
Data structure	the particular form in which data are to be treated by the computer program: whether as whole numbers, decimal fractions, or alphabetic characters, and whether as single pieces of information or as related sets or arrays of data.
Data verification	checking the accuracy of data that has been placed into a data processing system.
Direct access	an addressing scheme or random access storage medium that permits direct addressing of data locations.
Disk file	a means for storing data on a magnetic disk or platter.
Encode	to apply a set of rules specifying the manner in which data may be represented such that a subsequent decoding is possible.
Feedback	the process of returning portions of the output of a machine, process, or system for use as input in a further operation.
Flowchart	a graphical representation of the definition, analysis, or solution of a problem using symbols to represent operations, data flow, and equipment.
Hard copy	output that appears on paper.
Hardware	the physical equipment in a data processing system.
Indexed sequential	a file in which records are organized sequentially with indexes that permit quick access to individual records as well as rapid sequential processing.
Kilobytes	(kilo = 1000, bytes = characters) byte: A form of saying a character - numerical, letter, or symbol, in machine-readable form. Data processing personnel measure the size of records by bytes, instead of number of characters. Exactly, a kilobyte (KB or K) has 1,024 "characters".

Library	a collection of standard proven computer routines, usually kept on a library tape or random access file, by which problems or portions of problems may be solved.
Master file	a file of records containing a cumulative history or the results of accumulation; updated in each file processing cycle, and carried forward to the next cycle.
Megabyte	(1 million bytes) This unit is quite large and is usually used to measure the volume of a file, a disc, etc.
Memory	the part of the computer that stores the program, holds intermediate results, and various constant data. Same as <i>storage</i> ,
Modem	a contraction of "Modulator Demodulator." Its function is to interface with data processing devices and convert data to a form compatible for sending and receiving on transmission facilities.
MRA	Multivariate Regression Analysis - Also called the least squares method, is a mathematical method for producing a model for a dependent variable as a linear function of independent factors. As an example - the predicted sales price (dependent variable) is a function of independent factors such as Square Feet, Style, Neighborhood, etc.
Multiplexor	a computer hardware device used as a screening agent to the main computer. It polls all the messages from all terminals and transmits one by one to the main computer. It also dispatches "messages" to receiving ends ... it can be compared to the secretary of a big boss!
Multiprocessing	systems software that enables several CPU's to be connected together to provide faster, more reliable computing.
Multiprogramming	systems software that enables the computer to run several programs simultaneously.
On-line	peripheral equipment or devices in direct communication with the central processing unit, and from which information reflecting current activity is introduced into the data processing system as soon as it occurs.
Operating system	the systems software that manages all other software in the computer (also known as an executive or monitor).
Operator's instructions	these are sets of operation instructions, which tell the operator what to do to get the jobs done on the computer. The instructions are designed for two types of operators: <ol style="list-style-type: none">1. Computer operators - run the computer, execute a job, mount a tape, etc.2. Use operators - run different applications such as payroll, CAMA. The instructions tell them how to add a new record, delete a word, on a terminal or using cards.

Output	information that has been processed by the computer.
Peripheral equipment	units that work in conjunction with the computer, but are not part of the computer itself, such as tape reader, card reader, magnetic tape feed, high-speed printer, typewriter, etc.
Printer	hardware for outputting on paper.
Program	the instructions that enable a computer to process data.
Programming Language	a system for coding instructions for computer processing.
Punched cards	a storage medium similar to index cards.
Random access	for device or media, the accessing of data by address rather than by sequence.
Record	a collection of related items of data treated as a unit.
Sequence	an arrangement of items of data according to a specified set of rules.
Sequential processing	the procedure of processing data records in the same order that they occur.
Sequential storage	storing of data in sequential order.
Software	the programs and routines used to extend the capabilities of computers, such as compilers, assemblers, routines, and subroutines. Also, all documents associated with a computer, e.g., manuals, circuit diagrams.
Source	that which provides information to be entered into the computer.
Source document	a form containing raw data for entry into the computer.
Source file	a computer program in high-level language code.
Standard deviation	a statistical measure of the variation of a characteristic about its average value. Standard deviation is the square root of the variance of a characteristic about its average observed value. Variance is the sum of the squared deviations of each observed value from the average, divided by one less than the number of observations. For normally distributed observations, approximately 70% of the observations will fall within one standard deviation of the mean or average value.
Storage	the retention of information in the computer system.
Summary report	output that displays only the end product of processing in a concise format.
System software	computer software that provides overall housekeeping functions for the computer.
Systems design	the development of a computer system (hardware and software) to suit a particular application, by using the program development cycle.
Terminal	a device in a system or communication network at which point data can either enter or leave the system.

Transaction file	a file containing transient data to be processed in combination with a master file.
Turn-around document	a document or form prepared as output at one stage of the data processing cycle, and sent to a customer or other user with the intention of having it returned and used as input at a later stage.
Unit record	a record in which all data concerning each item in a transaction is punched into one card.
Variable	a quantity that, when identified by a symbolic name, can assume any of a given set of values.
Verify	To determine whether a transcription of data or other operation has been accomplished accurately. To check the results of key punching.
Video display terminal	hardware for output on a television-style picture tube (cathode-ray tube or CRT).
Word	a set of characters that occupies one storage location and is treated by the computer circuits as a unit and transported as such.

REAL ESTATE APPRAISAL TERMS

Abstract	a computer-printed report of appraised and/or assessed values for each parcel of real property in a given taxing district; generally sequenced geographically.
Accrued depreciation	<i>see depreciation.</i>
Actual age	the number of years elapsed since the original construction, as of the effective valuation date. Compare with <i>effective age</i> .
Ad valorem tax	in reference to property, a tax based upon the value of the property.
Aesthetic value	a value, intangible in nature, which is attributable to the pleasing appearance of a property.
Agricultural property	land and improvements devoted to or best adaptable for the production of crops, fruits, and timber, and the raising of livestock.
Air rights	the right to the use of a certain specified space within the boundaries of a parcel of land and above a specified elevation.
Alley influence	the enhancement to the value of a property rising out of the presence of an abutting alley; most generally applicable to commercial properties.
Amenities	in reference to property, the intangible benefits arising out of ownership; <i>amenity value</i> refers to the enhancement of value attributable to such amenities.

Appraisal	an estimate, usually in written form, of the value of a specifically described property as of a specified date; may be used synonymously with <i>valuation or appraised value</i> .
Appraisal schedules	any standardized schedules and tables used in conjunction with a revaluation program, such as replacement cost pricing schedules, depreciation tables, land depth tables, etc.
Appraised value	<i>see appraisal</i> .
Appraiser	one who estimates value. More specifically, one who possesses the expertise to execute or direct the execution of an appraisal.
Assessed value	<i>see assessment</i> .
Assessing	the act of valuing a property for the purpose of establishing a tax base.
Assessment	the value of taxable property to which the tax rate is to be applied in order to compute the amount of taxes; may be used synonymously with <i>assessed value, taxable value, and tax base</i> .
Assessment district	an assessor's jurisdiction; it may or may not be an entire tax district.
Assessment period	the period of time during which the assessment of all properties within a given assessment district must be completed; the period between tax lien dates.
Assessment ratio	the ratio of assessed value to a particular standard of value, generally the appraised value. A percentage to be applied to the appraised value in order to derive the assessed value.
Assessment roll	the official listing of all properties within a given taxing jurisdiction by ownership, description, and location showing the corresponding assessed values for each; also referred to as <i>tax list, tax book, tax duplicate, and tax roll</i> .
Assessor	the administrator charged with the assessment of property for ad valorem taxes; his precise duties differ from state to state depending upon state statutes.
Asthetic value	a value, intangible in nature, which is attributable to the pleasing appearance of a property.
Average deviation	in a distribution of values, the average amount of deviation of all the values from the mean value, equal to the total amount of deviation from the mean divided by the number of deviations. As applied to an assessment-to-sale ratio distribution, the average amount which all the ratios within the distribution deviate from the mean ratio.
Base price	a value or unit rate established for a certain specified model, and subject to adjustments to account for variations between that particular model and the subject property under appraisal.

Blighted area	a declining area characterized by marked structural deterioration and/or environmental deficiencies.
Board of Equalization	a non-jurisdictional board charged with the responsibility of reviewing assessments across properties and taxing districts and to assure that said properties and districts are assessed at a uniform level, either raising or lowering assessments accordingly; also referred to as <i>Board of Appeals</i> , and <i>Board of Review</i> .
Building residual technique	a building valuation technique which requires the value of the land to be a known factor; the value of the buildings can then be indicated by capitalizing the residual net income remaining after deducting the portion attributable to the land.
Capitalization	a mathematical procedure for converting the net income which a property is capable of producing into an indication of its current value. See <i>income approach</i> .
CDU rating	a composite rating of the overall condition, desirability, and usefulness of a structure as developed by the Cole-Layer-Trumble Company and used nationally as a simple, direct, and uniform method of estimating accrued depreciation.
Central business district	the center of a city - in which the primary commercial, governmental, and recreational activities are concentrated.
Certified assessment Evaluator	a professional designation (C.A.E.) conferred upon qualifying assessors by the International Association of Assessing Officers (IAAO).
Classified property tax	an ad valorem property tax under which the assessment ratio varies for different property classes.
Component part-in-place Method	the application of the unit-in-place method to unit groupings or construction components. See <i>unit-in-place method</i> .
Corner influence	the enhancement to the value of a property due to its corner location; most generally applicable to commercial properties.
Cost approach	one of the three traditional approaches to determination of the value of a property; arrived at by estimating the value of the land, the replacement or reproduction cost new of the improvement, and the amount of accrued depreciation to the improvement. The estimated land value is then added to the estimated depreciated value of the improvements to arrive at the estimated property value. Also referred to as the "cost-to- market approach" to indicate that the value estimates are derived from market data abstraction and analysis.

Cost factor	a factor or multiplier applied to a replacement or reproduction cost to account for variations in location and time, as well as for other elements of construction costs not otherwise considered.
Cubic content	the cubic volume of a building within the outer surface of the exterior walls and roof and the upper surface of the lowest floor.
Deed	a written instrument, which conveys an interest in real property. A <i>quitclaim deed</i> conveys the interest described therein without warranty of title. A <i>trust deed</i> conveys interest described therein to a trustee. A <i>warranty deed</i> conveys the interest described therein with the provisions that the freehold is guaranteed by the grantor, his heirs, or successors.
Depreciation	loss in value from all causes; may be further classified as <i>physical</i> , referring to the loss of value caused by physical deterioration; <i>functional</i> , referring to the loss of value caused by obsolescence inherent in the property itself; and economic, referring to the loss of value caused by factors extraneous to the property. <i>accrued</i> depreciation refers to the actual depreciation existing in a particular property as of a specified date. <i>normal</i> depreciation refers to that amount of accrued depreciation one would normally expect to find in buildings of certain construction, design, quality, and age.
Depreciation allowance	a loss of value expressed in terms of a percentage of replacement or reproduction cost new.
Depth factor	a factor or multiplier applied to a unit land value to adjust the value in order to account for variations in depth from an adopted standard depth.
Depth table	a table of depth factors.
Design factor	a factor or multiplier applied to a computed replacement cost as an adjustment to account for cost variations attributable to the particular design of the subject property which were not accounted for in the particular pricing schedule used.
Deterioration	impairment of structural condition evidenced by the wear and tear caused by physical use and the action of the elements, also referred to as <i>physical depreciation</i> .
Economic depreciation	<i>See depreciation.</i>
Economic life	the life expectancy of a property during which it can be expected to be profitably utilized.
Economic obsolescence	obsolescence caused by factors extraneous to the property. Also referred to as <i>economic depreciation</i> .

Economic rent	the rent which a property can be expected to bring in the open market as opposed to <i>contract rent</i> or the rent the property is actually realizing at a given time.
Effective age	an age assigned to a structure based upon its condition as of the effective valuation date; it may be greater or less than the structure's actual age. Compare with <i>actual age</i> .
Effective depth	in reference to property valuation; that depth, expressed in feet, upon which the selection of the depth factor is based.
Effective frontage	in reference to property valuation, that total frontage, expressed in lineal feet, to which the unit land value is applied, it may or may not be the same as the actual frontage.
Effective gross income	the estimated gross income of a property less an appropriate allowance for vacancies and credit losses.
Effective valuation Date	in reference to a revaluation program, the date as of which the value estimate is applicable.
Encroachment	the displacement of an existing use by another use.
Environmental deficiency	a neighborhood condition such as adverse land uses, congestion, poorly designed streets, etc., operating to cause economic obsolescence and, when coupled with excessive structural deterioration, blight.
Equalization Program	a mass appraisal (or reappraisal) of all property within a given taxing jurisdiction with the goal of equalizing values in order to assure that each taxpayer is bearing only his fair share of the tax load; may be used synonymously with a <i>revaluation program</i> .
Equity	in reference to property taxes, a condition in which the tax load is distributed fairly or <i>equitably</i> ; opposite of <i>inequity</i> which refers to a condition characterized by an unfair or unequitable distribution of the tax burden. <i>Inequity</i> is a natural product of changing economic conditions, which can only be effectively cured by periodic equalization programs. In reference to value, it is that value of the property remaining after deducting all liens and charges against it.
Excessive frontage	frontage, which because of the particular utility of the lot does not serve to add value to the lot.
Exempt property	see <i>tax exemption</i> .
Fee appraisal	see <i>mass appraisal</i> .
Field crew	the total professional staff assigned to a specific appraisal project, including listers, reviewers, staff appraisers, and clerical and administrative supporting personnel.

Functional depreciation	<i>see depreciation.</i>
Functional Obsolescence	obsolescence caused by factors inherent in the property itself. Also referred to as <i>functional depreciation.</i>
Functional utility	the composite effect of a property's usefulness and desirability upon its marketability.
Grade	the classification of an improvement based upon certain construction specifications, and quality of materials and workmanship.
Grade factor	a factor or multiplier applied to a base grade level for the purpose of interpolating between grades or establishing an intermediate grade.
Grantee	a person to whom property is transferred and property rights are granted by deed, trust instrument, or other similar documents. Compare with <i>grantor.</i>
Grantor	a person who transfers property or grants property rights by deed, trust instrument, or other similar documents. Compare with <i>grantee.</i>
Gross area	the total floor area of a building measured from the exterior of the walls.
Gross income	the scheduled annual income produced by the operation of a business or by the property itself.
Gross income Multiplier	a multiplier representing the relationship between the gross income of a property and its estimated value.
Gross sales	the total amount of invoiced sales before making any deductions for returns, allowances, etc.
Ground lease	a document entitling the lessee certain specified rights relating to the use of the land.
Ground rent	net rent from a ground lease; that portion of the total rent which is attributable to the land only.
Improved land	land developed for use by the erection of buildings and other improvements.
Income approach	one of the three traditional approaches to determination of value; measures the present worth of the future benefits of a property by the capitalization of its net income stream over its remaining economic life. The approach involves making an estimate of the potential net income the property may be expected to yield, and capitalizing that income into an indication of value.
Income property	a property primarily used to produce a monetary income.

Industrial park	a subdivision designed and developed to accommodate specific types of industry.
Industrial property	land, improvements, and/or machinery used or adaptable for use in the production of goods either for materials, or by changing other materials and products.i.e. assembling, processing and manufacturing ...as well as the supporting auxiliary facilities thereof.
Inequity	see <i>equity</i> .
Influence factor	a factor serving to either devalue or enhance the value of a particular parcel of land, or portions thereof, relative to the norm for which the base unit values were established; generally expressed in terms of a percentage adjustment.
Institutional Property	land and improvements used in conjunction with providing public services and generally owned and operated by the government or other nonprofit organizations ... hospitals, schools, prisons, etc. Such property is generally held exempt from paying property taxes.
Interest rate	the rate of return from an investment.
Land classification	the classification of land based upon its capabilities for use; and/or production.
Land contract	a purchase contract wherein the grantee takes possession of the property with the grantor retaining the deed to the property until the terms of the contract are met as specified.
Land residual technique	a land valuation technique which requires the value of the buildings to be known; the value of the land can then be indicated by capitalizing the residual net income remaining after deducting the portion attributable to the building(s).
Landscaping	natural features such as lawns, shrubs and trees added to a plot of ground or modified in such a way as to make it more attractive.
Land use restrictions	legal restrictions regulating the use to which land may be put.
Land value maps	a map used in conjunction with mass appraising; generally drawn at a small scale, and showing comparative unit land values on a block to block basis.
Lease, Lessee, Lessor	a written contract by which one party (lessor) gives to another party (lessee) the possession and use of a specified property, for a specified time, and under specified terms and conditions
Leasehold	a property held under the terms of a lease.
Leasehold Improvements	additions, renovations, and similar improvements made to a leased property by the lessee.

Leasehold Value	the value of a leasehold, the difference between the contract rent and the currently established economic or market rent.
Legal description	a description of a parcel of land which serves to identify the parcel in a manner sanctioned by law.
Lister	a field inspector or data collector whose principle duty is to collect and record property data (not an appraiser).
Market data Approach	one of the three traditional approaches to determination of the value of a property; arrived at by compiling data on recently sold property which are comparable to the subject property and adjusting their selling prices to account for variations in time, location, and property characteristics between the comparables and the subject property.
Market value	the price an informed and intelligent buyer, fully aware of the existence of competing properties, and not compelled to act, would be justified in paying for a particular property.
Mass appraisal	appraisal of property on a mass scale - such as an entire community, generally for ad valorem tax purposes, using standardized appraisal techniques and procedures to accomplish uniform equitable valuation with a minimum of detail, within a limited time period, and at a limited cost ... as opposed to a <i>fee appraisal</i> which is generally used to refer to a rather extensive, detailed appraisal of a single property or singularly used properties for a specified purpose.
Member Appraisal Institute	a professional designation (M.A.I.) conferred upon qualifying real estate appraisers by the American Institute of Real Estate Appraisers.
Mineral rights	the right to extract subterranean deposits such as oil, gas, coal, and minerals, as specified in the grant.
Minimum rental	that portion of the rent in a percentage lease which is fixed.
Model method	a method of computing the replacement or the reproduction cost of an improvement by applying the cost of a specified model and adjusting the cost to account for specified variations between the subject improvement and the model.
Modernization	the corrective action taken to update a property so that it may conform with current standards.
Mortgage, Mortgagee Mortgagor	a legal document by which the owner of a property (mortgagor) pledges the property to a creditor (mortgagee) as security for the payment of a debt.
Neighborhood	a geographical area exhibiting a high degree of homogeneity in residential amenities, land use, economic and social trends, and housing characteristics.

Neighborhood trend	three stages in the life cycle of a neighborhood "the <i>improving stage</i> characterized by development and growth; the <i>static stage</i> characterized by a leveling off of values; and the <i>declining stage</i> characterized by infiltration and decay.
Net income	the income remaining from the effective gross income after deducting all operating expenses related to the cost of ownership.
Net lease	a lease wherein the lessee assumes to pay all applicable operating expenses related to the cost of ownership; also referred to as <i>net net</i> , or <i>net net net lease</i> .
Net sales	gross sales less returns and allowances.
Net sales area	the actual floor area used for merchandising, excluding storage rooms, utility and equipment rooms, etc.
Non-conforming use	a use which, because of modified or new zoning ordinances, no longer conforms to current use regulations, but which is nevertheless upheld to be legal so long as certain conditions are adhered to.
Observed depreciation	that loss in value which is discernable through physical observation by comparing the subject property with a comparable property either new or capable of rendering maximum utility.
Obsolescence	a diminishing of a property's desirability and usefulness brought about by either functional inadequacies and over-adequacies inherent in the property itself, or adverse economic factors external to the property. Refer to <i>functional depreciation and economic depreciation</i> .
Operating expenses	the fixed expenses, operating costs, and reserves for replacements which are required to produce net income before depreciation, and which are to be deducted from effective gross income in order to arrive at net income.
Average income	rental received in addition to the minimum contract rental, based upon a specified percentage of a tenant's business receipts.
Overall rate	a capitalization rate representing the relationship of the net income (before recapture) of a property to its value as a single rate; it necessarily contains, in their proper proportions, the elements of both the land and the building capitalization rates.
Over assessed	a condition wherein a property is assessed proportionately higher than comparable properties.
Parcel	piece of land held in one ownership,
Percentage lease	a type of lease in which the rental is stipulated to be a percentage of the tenant's gross or net sales, whichever specified.

Permanent parcel number	an identification number which is assigned to a parcel of land to uniquely identify that parcel from any other parcel within a given taxing jurisdiction.
Personal property	property, which is not permanently affixed to and a part of the real estate, as specified by state statutes.
Physical depreciation	<i>see depreciation.</i>
Preferential assessment	an assessing system which provides preferential treatment in the form of reduced rates to a particular class of property; such as a system providing for farm properties to be assessed in accordance to their value in use as opposed to their value in the open market.
Property class	a division of like properties generally defined by statutes and generally based upon their present use. The basis for establishing assessment ratios in a classified property assessment system. <i>See classified property tax.</i>
Property inspection	a physical inspection of a property for the purpose of collecting and/or reviewing property data.
Property record card	a document specially designed to record and process specified property data; may serve as a source document, a processing form, and/or a permanent property record.
Public utility property	properties devoted to the production of commodities or services for public consumption under the control of governmental agencies such as the Public Utility Commission.
Quantity survey Method	a method of computing the replacement or the reproduction cost of an improvement by applying unit costs to the actual or estimated material and labor quantities and adding an allowance for overhead, profit, and all other indirect construction costs.
Real estate	the physical land and appurtenances affixed thereto; often used synonymously with <i>real property</i> .
Real property	all the interests, benefits, and rights enjoyed by the ownership of the real estate.
Reassessment	the revaluation of all properties within a given jurisdiction for the purpose of establishing a new tax base.
Rent	the amount paid for the use of a capital good. <i>See economic rent.</i>
Replacement cost	the current cost of reproducing an improvement of equal utility to the subject property; it may or may not be the cost of reproducing a replica property. Compare with <i>reproduction cost</i> .
Reproduction cost	the current cost of reproducing a replica property. Compare with <i>replacement cost</i> .

Reserve for replacements	a reserve established to cover renewal and replacements of fixed assets.
Residential property	vacant or improved land devoted to or available for use primarily as a place to live.
Revaluation program	see <i>equalization program</i> .
Sales ratio study	a statistical analysis of the distribution of assessment or appraisal-to-sale ratios of a sample of recent sales, made for the purpose of drawing inferences regarding the entire population of parcels from which the sample was abstracted.
Salvage value	the price one would be justified in paying for an item of property to be removed from the premises and used elsewhere.
Site development costs	all costs incurred in the preparation of a site for use.
Soil productivity	the capacity of a soil to produce crops.
Sound value	the depreciated value of an improvement.
Sound value estimate	an estimate of the depreciated value of an improvement made directly by comparing it to improvements of comparable condition, desirability, and usefulness without first estimating its replacement cost new.
Standard depth	that lot depth selected as the norm against which other lots are to be compared; generally the most typical depth.
Sublease	see <i>lease</i> ; the lessee in a prior lease simply becomes a lessor in a sublease.
Tax bill	an itemized statement showing the amount of taxes owed for certain property described therein and traceable to the party(s) legally liable for payment thereof.
Tax book	see <i>assessment roll</i> .
Tax district	a political subdivision over which a governmental unit has authority to levy a tax.
Tax duplicate	see <i>assessment roll</i> .
Tax exemption	either total or partial freedom from tax; total exemption such as that granted to governmental, educational, charitable, religious, and similar nonprofit organizations, and partial exemption such as that granted on homesteads, etc.
Tax levy	in reference to property taxes, the total revenue, which is to be realized, by the tax.
Tax list	see <i>assessment roll</i> .
Tax mapping	the creation of accurate representations of property boundary lines at appropriate scales to provide a graphic inventory of parcels for use in accounting, appraising

and assessing; such maps show dimensions and the relative size and location of each tract with respect to other tracts.

Tax notice	a written notification to a property owner of the assessed value of certain properties described therein; often mandated by law to be given to each property owner following a revaluation.
Tax rate	the rate - generally expressed in dollars per hundred or dollars per thousand (mills) - which is to be applied against the tax base (assessed value) to compute the amount of taxes. The tax rate is derived by dividing the total tax levy, by the total assessed value of the taxing district.
Tax roll	see <i>assessment roll</i> .
Tillable land	land suitable for growing annual crops.
Under assessed	a condition wherein a property is assessed proportionately lower than computable properties.
Uniformity	as applied to assessing, a condition wherein all properties are assessed at the same ratio to market value, or other standard of value depending upon the particular assessing practices followed.
Unimproved land	vacant land; a parcel for which there is no improvement value.
Unit cost or price	the price or cost of one item of a quantity of similar items.
Unit-in-place method	a method of computing the replacement or reproduction cost of an improvement by applying established unit-in-place rates, developed to include the cost of materials, equipment, labor, overhead and profit, to the various construction units.
Use density	the number of buildings in a particular use per unit of area, such as a density of so many apartment units per acre.
Use value	the actual value of a commodity to a specific owner, as opposed to its value in exchange or market value.
Vacancy	an un-rented unit of rental property.
Vacant land	unimproved land; a parcel for which there is no improvement value.
Valuation	see <i>appraisal</i> .
View	the scene as viewed from a property.
Water frontage	land abutting on a body of water.
Woodland	land which is fairly densely covered with trees.
Zoning regulations	governmental restrictions relating to the use of land.

STATISTICAL TERMS

Aggregate ratio	as applied to real estate, the ratio of the total assessed value to the total selling price.
Average deviation	in a distribution of values, the average amount of deviation of all the values from the mean value equal to the total amount of deviation from the mean divided by the number of deviations.
Cells	the basic units making up a stratified sample; each sale representing a distinct group within the total universe.
Coefficient	a value prefixed as a multiplier to a variable or an unknown quantity.
Coefficient of dispersion	as applied to an assessment-to-sale ratio distribution, a measure of dispersion in a given distribution equal to the average deviation of the ratios from the mean ratio divided by the mean ratio.
Frequency distribution	a display of the frequency with which each value in a given distribution occurs, or in a <i>grouped frequency distribution</i> , a display of the frequency with which the values within various intervals, or value groupings, occur.
Mean	a measure of central tendency equal to the sum of the values divided by the number. Also referred to as <i>arithmetic average</i> or <i>arithmetic mean</i> .
Median	a measure of central tendency equal to that point in a distribution above which 50% of the values fall and below which 50% of the values fall. The 50th percentile. The 2nd quartile.
Mode	a measure of central tendency equal to that value occurring most frequently in a given distribution. In a grouped frequency distribution, the mode is equal to the mid point of the interval with the greatest frequency.
Normal distribution	a distribution in which all the values are distributed symmetrically about the mean value, with 68.26% of the values falling between +/- 1 standard deviation, 95.44% between +/- 2 standard deviations, and 99.74% between +/- 3 standard deviations.
Percentile rank	the relative position of a value in a distribution of values expressed in percentage terms; for instance, as applied to an assessment-to-sale ratio distribution, a ratio with a percentile rank of 83 would indicate that 83% of the ratios were lower and 17% of the ratios were higher than that particular ratio.
Precision	as applied to real estate, it refers to the closeness of estimated value to actual selling price on an aggregate basis.
Price related differential	as applied to real estate, an analytical measure of the vertical uniformity of values in a given distribution calculated by dividing the mean ratio by the aggregate ratio; a ratio of more than 1 being generally indicative of the relative

	undervaluation of high priced properties as compared to the less valuable properties, whereas a ratio of less than 1 would indicate the converse relationship.
Quartile	positions in a distribution at 25 percentile intervals; the <i>first quartile</i> being equal to the 25th percentile, the <i>second quartile</i> being equal to the 50th percentile or the median, and the <i>third quartile</i> being equal to the 75th percentile.
Regression analysis	a statistical technique for making statements as to the degree of linear association between a criterion (dependent) variable and one or more predictor (independent) variables; a simple linear regression having one independent variable, and multiple linear regression having more than one independent variable.
Range	the difference between the highest and the lowest value in a distribution.
Ratio	a fixed relationship between two similar things expressed in terms of the number of times the first contains the second; the quotient of one quantity divided by another quantity of the same type, generally expressed as a fraction.
Sample	<p>as applied to real estate, a set of parcels taken from a given universe which is used to make inferences about values for the universe.</p> <p><i>A probability sample</i> is a sample in which each parcel in the universe is given equal chance of being included. Also referred to as random <i>sample</i>.</p> <p><i>A non-probability sample</i> is a sample in which each parcel in the universe being chosen by other criteria is not given an equal chance of being included. Essentially all assessment-to-sale ratio studies are non-probability samples.</p>
Sample size	as applied to real estate, the number of parcels needed from a universe to achieve a desired level of precision, given the total number of parcels in the universe and the standard deviation thereof.
Standard deviation	a measure of dispersion, variability or scatter of values in a given distribution equal to the square root of the arithmetic mean of the squares of the deviations from the mean.
Standard error of the mean	a measure of the statistical variability of the mean equal to the standard deviation of the distribution divided by the square root of the sample size.
Stratified sampling	the selection of sample parcels from distinct groups within the total universe based upon the known sizes and characteristics of these distinct groups.
Universe	as applied to real estate, all the parcels of a given type in the group under study, i.e., all the parcels of a given neighborhood, district, etc. Also referred to as <i>population</i> .